# A Lecture
ON
# THE ETIOLOGY AND TREATMENT OF PUERPERAL ECLAMPSIA.

DELIVERED AT THE MEDICAL GRADUATES' COLLEGE AND POLYCLINIC.

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As the majority of those attending this College are either in private practice or intend entering upon it sooner or later, it is essential that the latest views of any subject considered, especially one of such vital interest as this to any engaged in the practice of obstetrics, should be placed before you; but, as Zweifel has termed eclampsia "the disease of theories," I shall only mention what may be regarded as the more important with reference to the etiology of this disease—so terrible in its onset and course, and so terrifying to those around. It may appear as extraordinary that such an enormous amount of writing—in 1908 alone Eardley Holland states in an admirable review that there were over 100 scientific papers on the eclampsia problem[1]—has been devoted to this subject, but this is due to the fascination of the unknown. When the exact cause of a disease is demonstrable it ceases to be of such interest to the pathologist and to those who are searching for light. Until we know exactly the cause of onset of an affection it will be studied as carefully as heretofore, but with the help of modern methods of investigation the task becomes easier than formerly.

Puerperal eclampsia may be defined as a disease peculiar to the pregnant woman, and almost invariably manifesting its presence by convulsions of a tonic or clonic character, accompanied by unconsciousness and followed by coma or sleep. It may occur either during gestation, immediately before, during, or after confinement, and may be extremely slight in the manifest symptoms, or so terrible and grave as to kill immediately or within a few hours of the occurrence of the first convulsion. It is most usual to occur in the latter part of pregnancy, rarely before the fifth month, and very rarely before the fourth month; generally a short time before term, less frequently in labour, and least frequently after labour. Its frequency varies from 1 in 500 cases to 1 in 250, according to various tables. About 70 to 80 per cent. of all cases occur in primiparae. It is very difficult to estimate the incidence exactly, because most figures are taken from clinics to which patients are sent on account of the convulsions, whereas in ordinary private practice they would be treated at home. We know that 80 per cent., or between 75 and 80 per cent., according to various statistics, of those women attacked by the disease recover, and it is important to note that they recover under all kinds of treatment. Therefore there is a mortality of about 20 or 25 per cent.—a terrible mortality in any disease. I shall endeavour to see if there is any method of treatment which will diminish that mortality. In some tables the death-rate has been much higher—as much as 32 per cent. in Schroeder's clinic.

## DIAGNOSIS.

There is, as a rule, no difficulty about diagnosis, but it is possible that it may be confounded with:

1. Cholaemic eclampsia, which condition seems to have been established by Braun, Frerichs, and others, and is a rare disease. There are no signs of renal mischief, such as albuminuria, oedema, etc., and symptoms point to the liver, as epigastric tenderness, vomiting, and intense headache, and pain referred to the region of the liver. A state of nervous agitation develops and convulsions follow; the patient sooner or later becomes comatose. In the severe cases jaundice always develops, and the urine may contain biliary matter or remain normal. The condition of the blood favours thrombosis; embolism and haemorrhages and petechiae, as well as purpura, are common.

2. Epileptic convulsions, which may, of course, occur at any time during pregnancy in the epileptic. There may, however, be some doubt about a case seen for the first time in the "status epilepticus," when the patient passes from one convulsion to another, and which may terminate fatally, or when one sees the patient in the stupor or coma after an attack of epilepsy.

3. Uraemia may be the cause of some difficulty in making the diagnosis. It develops from a sudden suppression of urine, or when the kidney substance has been destroyed, and eclampsia develops in the same way when the pregnancy kidney has reached a certain stage of degeneration. But puerperal eclampsia may develop when the kidney is apparently normal, when the urine examination is consistent with health, and when there is no albumen present in the urine. Undoubtedly there are many points of resemblance between the two affections. It has been observed that the freezing-point depression (cryoscopic point) of the blood differs in the two conditions.[2] But, as in cholaemic convulsions, it may truly be said that only the *post-mortem* room can really decide when either occurs in the pregnant woman.

4. Coma, due to cerebral apoplexy, alcohol, or meningitis, which may come on during pregnancy, may be mentioned, as well as hysteria, acute poisoning from strychnine, phosphorus, or nitro-benzol,[3] but when the whole of the antecedents of each case are considered there is not likely to be much difficulty in making a diagnosis from puerperal eclampsia.

## PROGNOSIS.

This must always be serious, because the mortality of the mother is 20 to 25 per cent., and of the fetus 33 to 50 per cent. Stroganoff had a maternal mortality of 6.6 per cent. in a series of 400 cases, which is extraordinarily favourable and most unusual. But prognosis may be exceedingly difficult and uncertain, because where the convulsions may be slight and have ceased, where the secretion of urine has been re-established, and where the temperature is not high and the patient seems to be doing well, a convulsion occurs, ending in profound coma and death. Persistent high arterial tension is always unfavourable.

Speaking generally, if the temperature is not running up, the pulse is fairly good and not rapid or thready, the fits decreasing in frequency or have ceased, and the kidneys are acting well, all may go well. If convulsions commence after labour, the prognosis is, according to recent statistics, equally serious as in those cases where they commence before or during labour. According to Veit, the mortality is about 14 per cent. in primiparae and about 19 per cent. in multiparae. Olshausen considers that the mortality is about the same in both. According to Seitz, the prognosis is worse with each convulsion up to 20 or 30. The prognosis really seems to depend on the rapidity with which the attacks follow each other and the duration of the coma after the convulsion.

## PATHOLOGY.

It may be briefly stated that all the organs of the body are in some manner affected, the main lesions being found in the liver, kidney, heart, and brain. In other words, it may be said that these organs are affected in puerperal eclampsia in the same manner as they are in many toxaemias. As I remarked under the head of diagnosis, the *post-mortem* room alone could decide in cases of cholaemic convulsions, with its more or less necrotic changes in the liver in its most marked degree, acute, yellow atrophy of the liver,[4] or puerperal eclampsia, for they are really the result of profound poisoning. It was usually thought that the kidneys were the main source of trouble, considering that renal changes are constantly present in eclampsia, but in 1888 Pelliet called attention to haemorrhagic lesions in the liver in eclampsia. Schmorl confirmed his observations and pointed out that eclampsia was distinguished by profound changes characteristic of no other disease, and that he had found in every case lesions of the liver which he considered were more characteristic than those observed in the kidneys. In 1893 he published the result of his examination of 73 fatal cases, and it may be interesting to mention more especially the changes in the kidney which took place in 99 per cent. of the cases, and which are of a degenerative nature. The macroscopic appearances are those of parenchymatous nephritis. Microscopically protoplasm of the epithelial cells of the convoluted tubes is found in various stages of degeneration, cloudy swelling, fatty degeneration,

and coagulative necrosis. Schmorl states, contrary to the opinion of Winter, that the glomeruli are not chiefly affected. In one case he found the kidneys healthy although the other organs had the usual changes. He found the liver affected in all but 27 of his cases, and says the condition consists of necrosis of cells, singly or in varying sized patches, which may be anaemic or haemorrhagic, and has met with fibrinous thrombi of the capillaries of the interlobular as well as the intralobular veins, and a fibrinous exudate between the liver cells. The macroscopical appearance of the liver shows minute haemorrhages under the capsule, as well as minute infarctions due to thrombosis of the smaller branches of the portal vein. The pathological conditions of the liver closely resemble those found in acute yellow atrophy, yellow fever, and phosphorus poisoning. There are metastatic thrombi of liver and placental cells, and fat emboli have been found in the lungs and glomeruli by Virchow and Winkel.[5]

In eclampsia there seems to be general thrombosis of capillaries. It is an affection of different organs at the same time which allows puerperal eclampsia to be diagnosed after death. It may be said of the blood that in the majority of cases the red corpuscles are greatly in excess, and that this is also true of the white corpuscles, which are much more numerous than in normal pregnancy.[6]

Dienst lays great stress on this excess of white corpuscles, as he considers that they are the origin of fibrinogen, which, according to him, is, by its increase, the actual cause of the disease, to which I shall presently refer.[7]

In the fetus minute haemorrhages have been found in the more important organs, as well as fatty degeneration or necrosis. This will show the severity of the poison, and as the changes are akin to those found in the mother, it is evident that the same kind of poison affects the circulation in both, leading to these pathological changes.

## Etiology.

This part of the subject may be divided into (*a*) causes residing in the mother, (*b*) causes residing in the fetus.

Of the causes which reside in the mother, two great theories have been in vogue:

1. The pressure, or mechanical theory, due to increased intra-abdominal pressure, and the pressure of the enlarging uterus.

2. The toxaemic theory.

These, again, may be divided into predisposing and exciting causes. The predisposing causes may be said to include:

(*a*) Any disease of the kidney, or any condition which causes faulty elimination, because, of course, if elimination is interfered with, waste products must be retained in the circulation, and may damage the kidneys, as well as other organs.

(*b*) Pressure on the renal veins, or on the ureters, by an unusually large uterus, as in twin pregnancy, causing retention of urine.

(*c*) Abnormally large fetus or fetal head.

(*d*) Small pelvis.

Statistics show the occurrence of eclampsia in 11 per cent. of multiple pregnancy as compared with 1.1 per cent. of single pregnancy. Primiparae of extreme youth or extreme age are especially liable to eclampsia because of rigidity of muscles. The proportion of eclamptic primiparae to multiparae is as 3 to 1.[8]

The theory of pressure on the ureters or veins need not be discussed unless it can be shown that it in any way raises blood pressure. The secretion of urine is determined by pressure of blood in the glomeruli of the kidneys. Whatever causes contraction of the arterioles of the body generally raises pressure in the arteries, and will raise the pressure in the glomeruli also, leading to increased secretion. In certain circumstances the contraction of arterioles may be so great that the branches of the renal arteries are also constricted. Then, although the general pressure is so high, the pressure on the glomeruli falls so much that secretion of urine ceases and suppression of urine is established. This condition may explain the absence in some cases of changes in the kidney.

We know that abdominal tumours, even of enormous size, do not cause eclampsia. The exciting causes, supposing, of course, that the pathological factors are present, may be sudden suppression of urine, partial or complete, constipation, painful contractions of the uterus, rigid os in primiparae, exhausting expulsive efforts, and emotion. After the first convulsion, the slightest shock or irritation may cause another one.

In the light of modern research it may be said that puerperal eclampsia is caused by a toxaemia—some poison circulating in the blood—and that as the poison must be derived from some changes in the body itself, it must be autogenetic, or an autointoxication. The whole condition is, in fact, due to defective chemistry of the body, and I may briefly lay before you the more recent views as to the causation of that toxaemia.

There can be, as far as we know at present, no "eclamptic toxin," but there must be some poison or poisons to begin the changes in the cells which lead to disorganization of the organs as a rule most affected—the liver and kidneys. Zangemeister's investigations[9] have shown that the retention of nitrogenous substances is not to be regarded as a causal factor under any circumstances. I shall briefly relate the substance of most of the recent theories regarding the origin of the poison.

### 1. *The Circulation in the Mother's Blood of Fetal or Placental Elements.*

This was brought forward by Veit in 1902. It is founded on the knowledge that particles of fetal ectoderm, and even portions of chorionic villi, become separated from the placenta and gain access to the mother's blood. Veit believed that this gave rise to a poison termed syncytiotoxin, which is normally rendered harmless by an antibody syncytiolysin, which develops in the mother's serum. If the amount of poison is too great to be neutralized by the syncytiolysin, poisoning and eclampsia occur. He injected an emulsion of human placenta into the peritoneal cavities of rabbits, which led to albuminuria and sometimes death, but these results follow the injection of any animal matter. If an ovum gets into the peritoneal cavity by rupture of a tube, eclampsia does not develop. Dreyfuss says[10] that there is no definite proof of the placental origin of eclampsia. Lavare has discovered a blood-coagulating ferment in the placenta, which is important when it is remembered how much thrombosis of the capillaries throughout the body takes place in eclampsia. Sievinski and others have shown that the fibrinogen content of the blood is raised in pregnancy, and is very high in eclampsia. It may be said, of course, that the cause of this disease lies in the failure of the so-called "organs of defence," including the thyroid, parathyroid, suprarenals, etc., to completely perform their functions, but we cannot speak positively concerning this point.

### 2. *Poisoning by Material Formed or Retained in the Placenta.*

Freund and others have attempted to prove that eclampsia is due to endotoxins contained in the chorionic villi, and particularly in the syncytium. Injections into animals of placental extracts were generally followed by death, and sometimes convulsions. The *post-mortem* examinations showed genuine thrombosis, with lesions of the liver and kidneys. Freund thought that the placenta contained poison made up of two constituents, one acting on the nervous system and the other causing thrombosis, but Lichtenstein in 1908 demonstrated that the results obtained could be produced by the injection of indifferent material.

### 3. *Derangement of the Metabolism of the Mother.*

With reference to this, it is important to briefly refer to the functions of the liver, and to remind you that, whilst it is the chief assimilative organ in the body, it is also the chief antitoxic and defensive organ. It must be remembered that it has to do with the disintegration of protein and the profound modification of the various products of protein metabolism (proteolytic functions). As the result of these combined processes, there occurs a remarkable degree of detoxication of the portal blood, which loses the highly toxic properties (for example, in respect of ammonia) it formerly possessed (detoxicating and defensive functions).[11] These processes are carried out largely by the aid of appropriate ferments (proteolytic, glycolytic) produced by the liver cells, and able to produce these effects even after death. Thus by a process of

self-digestion, or autolysis, the following products can be formed: Leucine, tyrosine, glycocoll, xanthine bases, ammonia, resembling those resulting from tryptic digestion. These ferment activities differ from those exercised by other digestive glands, inasmuch as the proteolysis and glycolysis they effect take place within the liver cell. This peculiarity exposes the liver cell in a special degree to disturbance, to the extent even, in the case of severe toxic influences, of contributing to its autolysis when it is left exposed to the action of its intracellular proteolytic enzymes, unchecked by the influences which normally control their activity. The conditions presented by the liver in acute yellow atrophy, chloroform and phosphorus poisoning, exemplify the powerful destructive actions of the proteolytic enzymes present in the liver cells. Thus the liver cell becomes exposed to the destructive action of its own proteolytic ferments. A process of self-digestion or autolysis may set in, either in the parts of the liver affected or in the whole liver, as in acute yellow atrophy, and results in the complete disintegration of the liver cell, with suppression of all its functions, not only the proteolytic and glycogenetic, but still more of its nutritive functions. The disturbances then brought about are amongst the most severe, violent, and fatal known to the body (cholaemia and hepatic toxaemias).

The influence of the nervous system must be considered in dealing with the functions of the liver. Belief in the possible effects of mental emotion on liver metabolism, based on clinical experience, receives some support from recent pathological observations regarding the part played by autolysis or self-digestion in liver disease. If the intracellular alkalinity in the liver cell fall to a low point as the result of acidosis, of inanition, or previous liver disease, the effect of severe mental depression or emotion accompanying liver disease may well be in particular cases to depress the functional activity of the liver cell beyond the point at which it can resist its own proteolytic ferments.[12]

Herman, Masson, and others found the relative amount of urea lessened in eclampsia, and Hélouin discovered that the relation of the amount of nitrogen contained in the urea to the total nitrogen was greatly altered. The normal ratio is reduced in pre-eclamptic toxaemia and eclampsia. Study of the "nitrogenous partition" by Zweifel, Ewing, Whitridge Williams, and others,[13] shows a marked increase in amino-acids, as well as uric acid, creatinin, and the xanthine bases. Zweifel demonstrated large quantities of sarcolactic acid in the urine, and this was also found in the cerebro-spinal fluid by Füth and Lockemann. But we have no proof, as yet, that lactic acid is the cause of eclampsia, because, as suggested by Whitridge Williams, it is probably only a result of the muscular work incident to the convulsions.

This theory of toxaemia has been much studied since Bouchard stated that our health depended on the even balance between the production and excretion of toxic substances. He considered that the urine would be a guide to the amount of toxin present. Much labour has been devoted to the analysis of the urine since then, in pregnant and non-pregnant women, with contradictory results. Tarnier and others considered the urine of the healthy pregnant woman less toxic than normal. Schumaker believed that the difference was due to the amount of concentration.[14] In the urine of eclampsia, with convulsions, different observers found the urotoxic dose vary, so that the results were quite contradictory, and it was found that the more precautions were taken in collecting urine, the method of preparation, etc., the less toxic it became, and Stewart, who took care to inject only pure urine, free from bacteria, declared it was innocuous.

Owing to the influence of the thyroid gland on metabolism, Nicholson considered that eclampsia must be due to insufficiency of iodothyrin, which is manufactured by the thyroid to aid the metabolism of nitrogenous substances.

Lange[15] found that in 133 women during the last twelve weeks of pregnancy the thyroid gland enlarged in a little over 81.2 per cent. If iodothyrin were administered, the thyroid became less in size, and enlarged when the drug was stopped. In 18.8 per cent. there was no enlargement, and of these 16 had albuminuria with casts, and 6 had eclampsia. If there is a deficient amount of iodothyrin, the metabolism of nitrogenous substances is not complete up to the stage of urea formation, and toxaemia follows. If the thyroid gland is completely removed, toxaemia may follow, causing convulsions.

Nicholson[16] considers that iodothyrin affects the kidneys—first, by exerting some specific action on them; secondly, if diminished, it allows the formation of toxins which damage the kidneys; thirdly, it prevents the formation of urea, and as urea is a powerful diuretic, it decreases this stimulus, for it is a marked vaso-dilator, and so maintains renal activity, since, if it is absent, it allows the secretion of the suprarenal, to which it is antagonistic, to come into action, leading to spasm of the renal arteries, which may arrest renal secretion.

The suppression of the thyroid function reduces the metabolism of cells in the same way as it does that of albumen, though the two processes do not proceed parallel with one another.[17] The theory advanced by Baumann, Oswald, and others is based on the assumption that the specific activity of the colloid present in the thyroid secretion is directed to the neutralization of toxic substances, and that this neutralization takes place within the blood stream. Attempts to obtain this toxin from the blood of thyroidless animals have, however, met with no success.

4. *Anaphylactic Reaction.*

By anaphylaxis—a term coined by Richet in 1902—is meant the hypersensitiveness of the organism to a foreign protein. In 1908 it was suggested by Rosenau and Anderson that eclampsia might represent an anaphylactic reaction. Lockemann and others believed that the mother was sensitized during pregnancy by minute quantities of fetal protein, and would develop anaphylactic shock if any amount of fetal blood were suddenly introduced into the circulation. They identified this condition with eclampsia. Others have failed to support them. Schenk, Veit, Heynemann, and Dienst have agreed in rejecting this theory.

Budin has shown that the poison absorbed from the intestinal tract has been in close relation to the toxaemias of pregnancy. Comyns Berkeley considers that eclampsia might be primarily due to renal toxaemia, hepatic, thyroid, or intestinal toxaemia—a failure of any of these organs to perform their functions properly resulting in the accumulation of the particular waste products they customarily deal with, and consequent general poisoning of the body, so that all the organs are more or less affected, and eclampsia results. Délore and Rodet suggested the presence of bacteria in the blood, and Müller thought a bacillus of the uterus causing a general intoxication would account for eclampsia.

5. *Mammary Toxaemia.*

Sellheim[18] advanced the theory that the poison of eclampsia was manufactured in the breast. This originated from what he had learnt of the birth palsy, and the calf disease of the cow, which in one of its developments singularly resembles eclampsia of the woman, and is considered by many veterinary surgeons to be exactly the same disease. It has been found that by the injection into guinea-pigs of small quantities of colostrum obtained from cows suffering from vitullus, the animals die with lesions of the same character as those found in eclampsia. Therefore it is suggested that eclampsia may be due to poison manufactured in the mammae.

6. *The Theory of the Fetus as a Cause of Eclampsia.*

Those who support this theory have in their favour the facts that eclampsia is more frequent with twins, and still more frequent with triplets; that convulsions usually cease after delivery, and have been known to cease on the death of the child *in utero;* that sometimes infants born of eclamptic mothers have convulsions after birth, and *post-mortem* evidences the same as those found in the mothers. Usually cases of eclampsia occur after the fifth month, so that waste material has had considerable time to accumulate.

Again, Dr. Drennan[19] has advanced the hypothesis *that the abstraction of calcium salts from the mother* by the fetus is a cause of puerperal eclampsia. In that article it is stated: (1) That, although it is generally believed a certain amount of fatty infiltration of the liver cells around

the hepatic veins, the central zone of the lobule, is physiological in pregnancy and lactation, it is really pathological, and that it is due to the extraction of calcium salts from the mother's blood by the fetus, in such quantity as to deprive the mother of what should rightfully be hers, to unite with the fatty matter in her liver cells, to form lipoids—soluble fats—which would then be conveyed by her circulation, to be deposited in tissues normally the dépôts of free fat, and also as a source of fat to the fetus. (2) This fatty infiltration causes disturbed liver function, with the production of toxins from imperfect protein digestion. (3) Circulation of toxins causes fatty degeneration of liver cells, thereby increasing the liability of the liver to functionate, with resulting increased toxaemia. For those who believe in the theory of immunity, this means that the organism does not form a sufficient amount of antibodies to render harmless any excess of toxic material.

I have spent a considerable time in laying before you the more important theories of the causation of this disease because I believe that if we could ascertain the cause we should not only be able to treat the patient with more likelihood of success, but we should by prophylactic measures be made able to safeguard all pregnant women.

Sir Halliday Croom is of opinion that, as all *post-mortem* examinations show the liver and kidneys are primarily involved, an explanation may be furnished by the fact that these organs are at fault, and functionate badly. The fact that the kidneys are not perfectly sound would account for a sudden chill being the immediate cause of an attack, and a chill may be brought about in many ways, and in any weather. Nagel found, from the records of the Berlin Hospital,[20] that some periods of the year had practically no cases of eclampsia, and in other months they occurred in series. On referring to the Royal Meteorological Institute of Potsdam, he found that the months which were free, or almost free, from eclampsia, were those months of a high barometer and even temperature, a change bringing damp, wet, and raw weather, making existing nephritis worse, and as a consequence increasing the number of eclampsia cases. Against these views, however, it must be admitted that cases occur in which no changes in the kidney or urine are made out, although the kidneys are involved in about two-thirds of the cases of eclampsia, and albumen is found in the urine in about 84 per cent. of all cases.

## TREATMENT.

It would be impossible for me here to discuss all the methods which have been advised or adopted by those who have had experience of this illness, but there are two points which ought to be borne in mind in approaching the study of treatment. First, that about 75 per cent. will recover, whatever may be done; and, secondly, the condition is so deceptive that, with reference to drugs, it is impossible to say that because a certain remedy has been successful in a few cases it will benefit all, or even the majority. Life is too short for any one man, however extensive his practice may be, to come across a sufficient number of cases in his own individual private work upon which to found rules applicable to all eclamptics. There are some practitioners who have attended many hundreds of confinements and yet have but rarely met with a case, and Croom mentions two[21] who have had between two and three thousand cases of labour and have never had a single case of puerperal eclampsia. Therefore it is easy to conceive of a practitioner, having had a few cases treated in a certain manner, being so impressed by them, if followed by success, as to feel strongly that his treatment saved the patient. We are therefore compelled, in dealing with treatment, to draw our particulars from hospitals and large clinics where the opportunity is afforded of admitting considerable numbers. It is natural that, in dealing with an anxious case, such as one of eclampsia, the medical attendant, if within reach of any maternity or hospital, should be glad to send the patient—if suitable as a hospital patient—there, so that he may be relieved of the responsibility of her treatment, and in the full knowledge that everything possible will be done for her. Hence the facility of dealing with large numbers, and of drawing conclusions therefrom, for, as the average number of cases varies from 1 in 500 to 1 in 250, according to where the statistics are compiled, it is evident that we must have a large number of confinements to give us data.

### *Prophylactic Treatment.*

Although we do not know the exact cause of the disease, and therefore cannot prevent toxaemia, we do know that frequently there are signs and symptoms of pre-eclamptic toxaemia which occur, and which give us warning of the approaching storm. I shall therefore divide this subject into (*a*) preventive, and (*b*) curative treatment.

The most common signals of danger are headache, which may persist for some days without any other symptoms, or it may be accompanied or followed by nausea, epigastric pain, sickness, diarrhoea or constipation, increased arterial tension, rapid pulse, lessened excretion, dimness of vision, and disinclination to exertion, or sometimes restlessness and excitement, the urine, as a rule, containing albumen. These symptoms may or may not be accompanied by oedema of the extremities and face. In my own experience the most common symptom has been headache, which has been more or less persistent, and slight blurring of vision. Occasionally dimness of vision may come on quite suddenly, and may be marked in one or both eyes. I remember one patient at the seventh month who complained of headache in the morning, and next day had well-marked albuminuric retinitis, but no oedema of the face or extremities. In many cases, before any symptoms arise at all, if the urine should be examined, albumen may be found, and this is always a danger signal if present in any quantity. It must be said, however, that in some cases symptoms will develop and no albumen be present, and in others no symptoms appear until the first convulsion. In one case of a patient who appeared to be absolutely well about six weeks before the confinement was due, I found on examination of the urine about three-fourths of albumen. In spite of my strong opinion that premature labour should be immediately induced, six days were allowed to pass, and I was summoned to her in the country, to find her unconscious and in continued convulsions. A large amount of albumen is not, however, always followed or accompanied by eclampsia. I remember one patient whose extremities were oedematous, and whose urine was scanty and almost solid with albumen, who arrived in town, owing to unavoidable delay, only immediately before the expected date of her confinement, when she was seized with labour, through which she passed satisfactorily. Another, to whom I was summoned in the country, had a fair amount of albumen, with no pre-eclamptic symptoms, who went through labour well, and was seized with violent convulsions afterwards, from which she recovered perfectly.

When the foregoing symptoms occur, accompanied by a small amount of albumen, undoubtedly the best treatment is to put the patient to bed and feed her on milk, giving as much aperient saline medicine as may be necessary to keep up free relief. According to Nicholson, eclampsia is due to an insufficiency of iodothyrin. Milk diet does not require so much iodothyrin; but a meat diet yields too little iodothyrin, and also yields too little iodine for the manufacture of a fresh supply. Therefore the patient may get well on this simple milk diet. Should the albumen increase in amount in spite of this treatment it will generally be found that the output of urea decreases in relation to the rise of albumen. It has been pointed out by Herman that there is a great diminution in the amount of urea in puerperal eclampsia, although we know from experiments that urea is not the reason of eclampsia. If the amount of albumen is rising—a sure indication that the woman is being increasingly poisoned—we have either to allow her to take her chance of continued rest and milk causing amelioration, or induce premature labour. The latter, in my opinion, is far the better course, because, as the affection is a disease of pregnancy, when that condition is over the results of the disease will most likely pass away. As I have already pointed out under the head of etiology, painful contractions of the uterus may be sufficient to cause a convulsion. The woman is in a state of unstable equilibrium, and the least irritation may turn the balance, so that the necessary manipulation to induce labour may be the means of bringing about the one thing we wish to avoid. Yet I still say that it is more prudent to induce labour and take this risk, because if there be a risk of induction it is hardly likely that the state of

irritability will be less by the time labour spontaneously starts, even if the patient continues free from convulsions for so long.

With reference to the method of inducing labour I shall only mention that, in my opinion, the safest and simplest, provided there is no reason for hurrying, is by passing one or two sterilized bougies into the uterus with every aseptic and antiseptic precaution. I have done this on many occasions, and up to the present have not met with any difficulty or haemorrhage from the bougie passing between the uterine wall and the placenta. Even if bleeding did take place in the special case under consideration it would probably do more good than harm.

Of course, the time at which the albumen occurs or is discovered, and the amount, will influence one's opinion, for if it be before the seventh month it is natural to give the woman every chance of continuing the pregnancy sufficiently long to bring forth a living child. If, however, rest in bed, combined with a milk diet, does not seem to lessen the amount of albumen, or if other symptoms do not seem to be improving, it is far better, in the interests of the mother, not to delay terminating pregnancy, at whatever date from conception it may be.

Although the foregoing treatment is the best to prevent the actual onset of eclampsia when any symptoms or signs develop, yet we know there are cases which occur where there are no signs or symptoms whatever, and the first indication of anything being abnormal is the sudden onset of convulsions. We know also that albuminuria in large quantity may occur quite suddenly, and therefore it is important to examine the urine from time to time, although this may not always be practicable, for the patient may not be seen at all until shortly before confinement, or only when taken with symptoms of illness.

### *Curative Treatment.*

As the etiology is still obscure, it is not possible to prescribe a causal therapeutics, but as we believe the disease to depend on some toxin, our endeavour must be to eliminate that toxin as quickly as possible, while we take care of the patient during the convulsive stage. The treatment may therefore be divided into (*a*) surgical, and (*b*) medical.

Although it will not be possible to discuss all under the first heading it will be of interest to enumerate the methods suggested.

Emptying the uterus: (*a*) Abdominal; (*b*) vaginal.
Total extirpation of the uterus.
Decapsulation of one or both kidneys.
Amputation of both mammae.
Trephining of the cranium.
Lumbar puncture.
Bleeding.
Intravenous injection of hirudin.
Injection of air into mammae.

### *Emptying the Uterus.*

In discussing the subject of emptying the uterus, which means active interference with a patient who is in such a state that the least irritation may lead to a fresh convulsion with risk of death, it would be rather a pleasant reflection with which to console one's self that the patient would be better untouched by operative interference, because some statistics prove that emptying the uterus does not stop fits, and therefore that it does not influence the disease. But as this is a disease of pregnancy, we know that when the child is born, the woman, should she survive, is at least nearer the end of her troubles. In fact, in my opinion, puerperal eclampsia may be looked upon as a disease having a definite course to run, like typhoid fever; in this case, if the poison in the system be sufficient to kill, then the patient will not outlast the ordinary course of the disease, but if the powers of resistance, or her "defensive forces" are strong enough, she will continue to the end, and recover. Now we know that, as a rule, in eclampsia, it does not run its course until the confinement is over, and therefore it is clearly good treatment to help terminate the pregnancy, providing that can be done without adding a greater danger, either immediate or remote, to the patient, always remembering that she is in a desperate condition, because, although we know the average of recoveries, we can never tell that the next convulsion will not kill the patient in whom we are interested. Therefore it is absolutely essential that each case should be treated on its own merits.

I do not wish to burden you with statistics, but with reference to the rapid termination of pregnancy there are some I must refer to, and I would remind you that such is the interest in puerperal eclampsia that every year which passes helps us, on account of accumulating experience, to take a different view regarding figures which were collected some years ago. In an admirable paper in 1902 by Herman, who collected from the reports of different clinics 2,142 cases of puerperal eclampsia, he states that of these the fits ceased in 850 after delivery. He considers that the comparison of the cases in which the uterus was rapidly emptied with those in which it was not interfered with was to show that there was no benefit in emptying the uterus, the fits were not stopped, neither was the death-rate apparently smaller. It is only right, however, to point out, and Herman thinks the objection a fair one, that the figures showing a very high mortality among the patients delivered by operation are taken from pre-antiseptic times, and do not apply to operative delivery under conditions of the present day.

Of course, in dealing either with operative means or spontaneous delivery, the most important point for consideration is the amount of time elapsing from the moment of the first convulsion to the emptying of the uterus. There can be no doubt about the increasing mortality with the multiplicity of the fits. In 571 cases collected by Seitz from Schauta, Schlesinger, Duhrssen, and others, this is clearly shown, and Reuben Peterson[22] tabulated 615 cases showing the results of prompt delivery and the expectant plan of treatment of eclampsia, and the former give a mortality percentage of 15.9 as compared with 28.9, the mortality of Professor Bumm being 4.8 as compared with 31.1 by the expectant treatment. These figures are very striking as showing the advantages of prompt delivery. In this table Zweifel had a mortality of 32.6 by the expectant treatment, which fell to 15 per cent. when he changed to immediate delivery after the patients entered the clinic. This table is especially valuable, as it shows the reduction in mortality in the same clinic through a change in the methods of treatment, and I therefore hand it to you, with other tables, on a separate printed slip.

It is natural to inquire what effect prompt delivery has on the recurrence of convulsions. It was observed long ago that they were fewer in number and less severe after the birth of the child than before. It is evident that if convulsions continue after the termination of labour the patient is profoundly affected by the poison, and the danger to the kidneys, liver, etc., may be so great that the eliminative treatment is not of the least use, and the patient is fatally ill with the first convulsion.

In a table given by Peterson, modified from Seitz, out of 2,135, convulsions ceased in 52.7 per cent. after delivery, including operative and spontaneous, whereas in 453 cases of vaginal and Caesarean section the convulsions ceased in 62.6 per cent. In another table showing cases in which convulsions ceased after spontaneous delivery he gives 59.7 per cent. This is almost exactly the same percentage as that of 994 cases in which convulsions ceased after operative delivery.[23] Therefore, from the foregoing figures it may be said that convulsions cease after delivery in a little more than half of the cases, and that it seems to make but little difference as regards convulsions whether delivery be spontaneous or terminates by operation. Although convulsions cease after delivery, it is not certain that the patient will recover, for 18 per cent. die; but she will have a better chance, because where the convulsions continue after labour the mortality is 10 per cent. higher. An interesting table shows that the convulsions may be taken as an index to the extent of the poisoning of the mother, and that the fewer the number of convulsions before vaginal Caesarean section the better the percentage of safety to the mother. It varied from a mortality of 18.5 per cent. when the operation was performed after from one to five convulsions to 100 per cent. when undertaken after from sixty to sixty-four fits.

It is necessary to refer to the fetal mortality in general in eclampsia compared with that following vaginal Caesarean section. Peterson gives the fetal mortality after all kinds of treatment as 29.4 per cent., and after vaginal Caesarean section undertaken at varying periods after the first convulsion it is 21.2 per cent., which is

lower than in other series. Where only three convulsions occurred before the birth of the children by vaginal Caesarean section, the fetal mortality was only 11.8 per cent. Out of 139 cases of spontaneous delivery the mortality percentage of the fetus was 25.1. The fetal mortality is lower after spontaneous than after various operative means of delivery (25.1 and 30 per cent.), but it is not so low as after vaginal Caesarean section. The reason for this lower fetal mortality after Caesarean section is that the operation is quickly performed, and the child is subject to little traumatism, which is undoubtedly the cause of the death of many infants. In the anxiety to deliver quickly by the ordinary methods, the child is frequently apt to suffer. While eclampsia is nearly three and a half times more in primiparae than in multiparae, the mortality in the latter is higher (28.02 and 22 per cent.)

It is evident from the foregoing that prompt delivery gives the woman the best chance, and in seeing a case you will quickly have to decide upon the most expeditious manner of emptying the uterus. Much, of course, will depend upon the time when the first convulsion occurs, and whether the patient has actually begun labour. If she be a multipara, with a soft dilatable os, or a primipara where the cervix has been taken up and no difficulty offers against dilatation, then if this can be safely and fairly rapidly done, it is far better for the woman than anything else, provided there be no narrowing of the pelvis. The dilatation can be carried out with simple dilators—Bossi's dilators—or manually. On the occasions when I have used Bossi's dilators I have had no difficulty, but I am certain that it requires great care not to cause laceration of the cervix. When the cervix is fully dilated, and not before, the membranes can be ruptured, and version performed, or forceps applied. As a point of great practical importance, I am sure that thorough dilatation of the cervix is essential before version or the application of forceps if you are to feel safe in avoiding lacerations in delivering the child. Of course all this takes time, however favourable the condition of the cervix, but in spite of the comparative delay it is far more satisfactory to deliver in this manner than to perform Caesarean section. But supposing the cervix is rigid, and quite undilatable (a word which must only be used with reference to the time likely to be spent upon dilating a hard and rigid cervix), the fits are recurring, and you consider rapid delivery will give the best chance to the woman, you must decide between vaginal Caesarean section or abdominal Caesarean section, and remember that the woman will have a better chance from either operation if she has not been subjected to manipulation by other operative procedures prior to Caesarean section.

Supposing the surroundings and arrangements for the abdominal operation are satisfactory, and the patient is at term, or approaching that time, abdominal Caesarean section is easier, and provides a clear exit for the child, especially if there be the least contraction of the pelvis. In vaginal Caesarean section the difficulties which may be met with are principally connected with the injury to the bladder, the difficulty in drawing down the cervix and in suturing it, and in tearing the cervix. But out of 530 cases collected by Peterson there was no difficulty with the operation as originally recommended by Duhrssen in 1896 in 214 cases, and he concludes that the anterior incision ordinarily serves all purposes, and that the additional incision in the posterior cervical lip can be dispensed with. In using both incisions the percentage of tears of the uterus and soft parts was rather higher than when only one was used.

Taking into consideration that in Duhrssen's operation the parts operated on are high up, that often one must trust to touch, because everything is not in sight, that haemorrhage may also tend to obscure the field of operation, and that when finally version or forceps are used, with the knowledge that injury may be done to the bladder or uterus, I think that most will prefer the abdominal route. This is probably more true to-day than when Duhrssen's operation was originally introduced, because the field of Caesarean section has become more extended. The earlier methods of operation have been improved upon. There are modifications of the uterine incision, and, of course, the most important development is the extraperitoneal Caesarean section introduced by Frank, of Cologne, in 1907. In this operation the peritoneum can be stripped from the bladder and uterus, so that the risk of infection becomes lessened.

Freund states that the methods in use in the Charité in cases of eclampsia are early delivery in order to diminish the severity of labour, venesection, and isolation. In 551 cases which were delivered in the first hour the mortality was 0 per cent. The mortality rapidly deteriorated with the duration of the disease at time of operation.

*Decapsulation of the Kidneys.*

According to Kermauner,[24] decapsulation carried on before delivery is of no value. Unilateral decapsulation only is irrelevant, and has had to be given up. Bilateral decapsulation carried out some hours after delivery yielded, according to Balser's collection of cases, thirty-seven deaths out of a total of ninety-one—that is, 40 per cent. As it is possible that favourable rather than unfavourable cases are published, the results must be regarded as of small value.

*Total Extirpation of the Uterus.*

This has been carried out on the assumption that the poison, or part of the poison, causing eclampsia was manufactured in the uterus.

*Amputation of the Mammary Gland.*

Sellheim[25] records a severe case of *post-partum* eclampsia recovering after amputation of the mammae, and Martin, who has published a case of severe eclampsia recovering after the same operation, believed that the fall of blood pressure caused by the operation had a great deal to do with its success.

*Lumbar Puncture.*

Bataski[26] published cases treated by lumbar puncture. When the arterial tension denotes a permanent state of hypertension, he considers it more rational than venesection. He withdrew 20 to 35 c.cm. of cerebro-spinal fluid, which was followed by relief in each case.

*Medical Treatment.*

I may enumerate some of the many remedies suggested in this affection, and then indicate what seems to be the most satisfactory means of treatment. Anaesthetics, morphine, chloral, veratrum viride, adrenalin, thyroidin, parathyroidin, hirudin, nitroglycerine, to act on the peripheral system; erythrotetranitral, calcium chloride, potassium chloride, serum treatment, removal of colostrum, hot packs and hot-air bath, oxygen, the injection of air or oxygen and potassium iodide into the mammae, lumbar anaesthesia.

As the treatment should be eliminative, based on the knowledge of a toxaemia, our object is to get rid of the poison as quickly as possible, or dilute it. A good dose of magnesium sulphate or some other saline may be given at once, or some prefer croton or castor oil, so that rapid aperient action may be secured. If there are reasons against rapidly emptying the uterus, one of the best means of diminishing the poison is to bleed freely and to use saline injection, or transfusion directly into the circulation by a vein. Bleeding is one of the oldest remedies, and in former days very free bleeding was practised. Ramsbotham[27] used to take "from 40 to 60 oz. and even more in the course of a very few hours." Of course, each patient will not stand the same amount of loss, but about 500 c.cm. or 600 c.cm. may be withdrawn at first, or an amount until the pulse becomes affected or the patient turns pale. There is no better means of diluting the poison than by these two simple methods, for, if no transfusion apparatus is at hand, continuous proctoclysis can be kept up by a small catheter in the rectum with normal saline solution.

Theoretically, hot packs and hot-air baths, by drawing off perspiration and tending to increase the thickness of the blood, ought to be harmful, but practically they seem to do good in some cases. Little[28] has had great success with the use of hot-air baths.

Döderlein[29] and Leopold advised against sweating, but if the patient can drink plenty of fluid, and if the saline solution be flowing freely into the intestine, rectum, or vein, then dilution of the poison is taking place and no harm can come of it. You must, however, remember that

such treatment is of no good if the patient is already oedematous, and if the kidneys are not acting at all.

Some prefer to give at once a large dose of morphine or chloral hydrate. If the patient is very restless, I prefer chloral. Of course, if there is high blood pressure the morphine reduces it, for it is a powerful vaso-dilator, but, if possible, it is better to do without it, because it undoubtedly adds risk to the child, and it is not without danger to the mother, with kidneys insufficiently acting. If the tension is high, veratrum viride will certainly lower it, and has long enjoyed a reputation in this affection. If the uterus has been emptied, and the convulsions should continue, with high tension of the pulse, this drug is well worth trying, but it must be used with care, for it is very powerful.

The patient may be kept soothed with some anaesthetic; and although chloroform is certainly more convenient, yet, if it is to be administered for a considerable time, it must be remembered that chloroform poisoning produces changes in the liver which are practically the same as those caused by the disease. Ether may be substituted for it, for Mr. Bellamy Gardner informs me that it does not attack and disintegrate the cells of the liver as does chloroform. For the actual convulsions, the inhalation of oxygen may be used when the surface of the skin becomes dusky.

According to Zweifel,[30] between 1887 and 1892, when chloroform and sweating but no venesection were employed, the mortality amounted to 32 per cent. In the years 1892 to 1895, when operation was done without chloroform and morphine and without sweating, the mortality sank to 15 per cent. He advised against sweating, because it thickens the blood, and is in favour of artificial dilution of the blood, and the excess of acid in the blood to be combated by the administration of vegetable acids.

Lichtenstein[31] recommends venesection, usually withdrawing 500 c.cm. of blood, and states that his recoveries amounted to about 24½ per cent.

There are two methods of treatment which deserve to be mentioned, because in the hands of some they seem to have been efficacious. One is the therapeutic employment of normal serum from pregnant women, as carried out by Mayer (Tübingen) and the other is the use of large doses of thyroid gland. I have already said that I have no intention of mentioning nearly all the many remedies which have been suggested, but anything which is likely to act as a direct antidote to the poison is worthy of consideration, and thus may act in this manner. Nicholson[32] considers that thyroid extract is the ideal vaso-dilator in cases of eclampsia, but that it is necessary to use large doses; 30 or 40 grains are given at first, and a second dose of 20 or 30 grains in six or eight hours if there should be no improvement. He considers that the noteworthy points in relation to this treatment are the unusually early re-establishment of the renal functions and the rapid and complete disappearance of symptoms. He believes that normally thyroid secretion is the opposing influence which safeguards renal circulation from a dangerous over-action of the internal secretion of the suprarenals, which acts as a constrictor of the arteries and capillaries. Englemann has injected hirudin (leech extract) intravenously with the object of inhibiting the coagulation of the blood and preventing thrombosis, and recently Licht[33] has published cases of intramammary injections of air.

I need not weary you by detailing other remedies, but I feel sure that the best results will come to those who regard this, in the light of our present knowledge, as a poison in the blood acting on the nerve centres; and as our treatment of all poisons is by an antidote when the poison is known, and by elimination, and, failing this, dilution when the poison is unknown, so the simplest way of regarding a patient suffering from puerperal eclampsia is as one suddenly poisoned, and treat her accordingly. Therefore anything which will, in any degree whatever, strengthen the defensive forces of the body, will do good. My belief is that venesection, combined with the endeavour to eliminate the poison, and dilution with saline transfusion will be of most service.

There are many cases in which no treatment is of any avail, and which are mortally ill from the moment of the first convulsion. There are others, again, which are not so seriously affected, although this can never be known at first, and therefore they are the ones which may recover under any treatment whatever, and are the cases where one is apt to have an exaggerated idea of the importance of any special line of treatment if it happens to be successful.

If the temperature be steadily rising, the patient comatose, with a rapid pulse, tending to be more frequent and thready, a tepid bath may be given if this be possible. The patient may be put into a warm bath, which is gradually cooled down to 80° F. or lower, and allowed to remain in for twenty minutes. This doubtless acts in the same way as it does in serious cases of typhoid fever or acute rheumatism.

### *Conclusions.*

From the foregoing it may be concluded:

First, that in spite of all the labour which has been spent upon investigation, we know of nothing which we can definitely state gives rise to the disease, although everything seems to point to poison circulating in the blood as being the cause.

Secondly, that without any doubt recent statistics show that the best treatment is that of rapidly emptying the uterus—by whatever means this may be most safely accomplished—after the first few convulsions; that is to say, without indefinite delay. The woman and the child are thereby given the best chance of life, and, as already stated, the maternal mortality has been lowered in the hands of some to under 5 per cent.

Thirdly, that the greater the delay in carrying out this treatment after the onset of the first convulsion, the greater will be the danger.

We must hope that the time is not far distant when, by continued research, the knowledge of the actual cause will provide us with a weapon to surely prevent the onset of this disease, and relieve the accoucheur of the future of one of the most terrible complications of the lying-in room.


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FROM statistics of the number of women pursuing higher studies in Prussia which have recently been published it appears that in the last winter session the total number was 2,980, as against 2,892 in the previous year. Of these, 361 were students of medicine, as against 329 in the corresponding session of 1911–12.

A MEETING of the committee of the German Society for the Repression of Quackery was held at Dresden on March 9th, when the following officers were chosen for the ensuing year: President, Professor Beythien; Vice-President, Professor Schmorl; Secretary, Dr. Neustatter; Assistant Secretaries, Drs. Decker and H. Weber; Treasurer, Dr. Eger.

# THE USES AND ABUSES OF PROPRIETARY FOODS IN INFANT FEEDING.*

BY

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For the past year or more one subject has been interesting us particularly in the children's department at Guy's Hospital, where we come in contact with a very large number of infants suffering from all the disorders which are the common result of artificial feeding. We have examined all cases of infantile dyspepsia, among the artificially fed with the object of estimating the part played in the production of the disturbance by the proportion of sugar in the diet, and we have come to the conclusion that excess of sugar is by far the most common cause of dyspepsia, at any rate among the children from such a poor neighbourhood as Bermondsey and the river side. I believe that in the past far too little attention has been paid to this particular aspect of infant dietetics. Sugar, which is commonly added with so free a hand by the mothers, is looked upon by them merely as a flavouring agent, and not as the constituent of the food most vital for the growth of the child and for the development of animal heat. It is quite common to find that a heaped teaspoonful of cane sugar is added to each of ten feeds for an infant whose weight totals but 8 or 10 lb. This amount is equivalent, weight for weight, to the consumption by an adult weighing 10 st. of about 2 lb. of pure cane sugar in the course of the day. That all infants on receipt of such an amount do not immediately respond by developing diarrhoea is evidence of the enormous tolerance for sugar and the great demand for sugar which the growing child shows.

In contrast with this apparent neglect of the importance of carbohydrate excess as a factor in the production of dyspepsia, there is no doubt that in the past the difficulties of protein digestion have been much exaggerated. Cow's milk, as every one knows, contains a very high percentage of casein, and it is to this single peculiarity that in the history of infant feeding a vast deal of attention has been directed. A difficulty in digesting the casein of cow's milk has been regarded as the crux of the whole matter. When an infant fed on cow's milk is sick the vomit is apt to consist of a dense curd of casein, and it seemed natural to attribute this to a special difficulty in the digestion of a substance which is present in amounts so strikingly in excess of the proportions found in human milk. In order to prevent the formation of this clot a whole series of devices has been recommended from time to time—for example, the use of barley water, of lime water, of sodium bicarbonate, and more recently, of sodium citrate.

At one time confirmation of the belief in the indigestibility of casein was found in the appearance in the stools of milk-fed infants of certain white curd-like masses which were presumed to be formed of undigested casein. Such stools, indeed, are commonly described by nurses and mothers as "undigested." It is long since these white curds have been proved to consist not of casein at all but of soaps. I believe, too, that the vomiting of casein curds is not to be looked upon as implying an inherent difficulty in the digestion of casein, but is an accident due to the nature of the food. If an infant fed upon cow's milk happens to develop dyspepsia it has no option but to vomit a dense curd, because such curds are formed normally in the process of digestion. Any good which results from the use of lime water, sodium bicarbonate, or sodium citrate, is, I think, due not to the prevention of the clotting process, but to the effect upon the acid fermentative dyspepsia which is the actual cause and occasion of the vomiting.

Dyspepsia in infancy is nearly always of a nature to be benefited by the addition of alkalis. The fats, and especially the sugars, tend to undergo fermentative changes, with the result that a great excess of volatile fatty acids is formed. As a result the contents of the stomach become intensely acid, and even the breath may have a sour, rancid odour. When these acid gastric contents reach the intestine, they act as a powerful stimulus to peristalsis. In spite of the free flow of alkaline succus entericus which their presence provokes the reaction of the intestine is always acid. The stools are green, watery, and so sour that the anus and any part of the skin which comes in contact with them is apt to be irritated and excoriated. The stimulus to peristalsis may be so great that the tense coils of intestine may be visible through the abdominal wall, while the pain is such that the whole body of the child is thrown into restless movement.

On the other hand, an infant fed upon a diet so poor in sugar as unaltered cow's milk is not likely to suffer from these symptoms of diarrhoea and vomiting. Upon a pure milk diet the stools are formed, clay-coloured and alkaline, because the volatile fatty acids, as a result of the low content of sugar in the food, are all held bound as soaps by the alkaline salts of the succus entericus. A diet of whole cow's milk, therefore, often results in constipation because the natural stimulus to peristalsis is absent. The very great success which whole-milk feeding has achieved proves, I think, two things. It shows that infants are able to digest the large amounts of casein without disturbance, and that the great majority of infants, among the sugar-fed children of the poor at any rate, are for a time likely to benefit by a change to a diet in which the percentage of sugar is relatively low.

Although an infant fed on whole milk without addition of any sort is likely to be free from any very stormy attacks of diarrhoea and vomiting, it is not to be supposed that the results will invariably be entirely satisfactory. In such infants the want of sugar often leads to constipation, to want of growth, and to backward development generally. We can therefore draw a sharp contrast between the baby fed only on cow's milk—pale, undersized, backward in development, with subnormal temperature and cold blue feet and hands, with alkaline, formed, clay-coloured stools and a tendency to constipation—and the infant fed upon a diet rich in sugar, whether milk dilutions to which sugar has been freely added or one of the numerous proprietary foods, in nearly all of which the sugar is present in great excess, an infant perhaps larger and better grown but with a troublesome tendency at the least provocation to suffer from explosive attacks of diarrhoea and vomiting. With each attack the tolerance for sugar tends to be lowered, sometimes only temporarily, sometimes permanently, so that a second attack supervenes more readily than in the first instance. In bad cases the tolerance for sugar may fall so low that dyspepsia is produced upon an amount less than that necessary for the maintenance of the body weight. In such a case a condition of true marasmus is produced in which the usual paradoxical reaction to food is seen. By the paradoxical reaction is meant that the child loses weight slowly when almost starved and loses weight with terrible rapidity when an attempt is made to increase the amount of food, because of the dyspepsia which results.

I do not mean that all infants fed on cow's milk will develop the one set of symptoms or that all infants fed on mixtures rich in sugar the other set of symptoms as an invariable rule; but if unsatisfactory results do follow they will in most cases be of the type described. We have, indeed, always to remember how great is the tolerance of infants living under good hygienic surroundings for even the most unsuitable forms of diet, provided only that no sudden changes are introduced. If infants invariably responded to an excess of any one constituent by developing the appropriate and expected symptom we should have a much clearer idea of the results of excess than we have at present. Because one sturdy infant has successfully accustomed itself to thrive upon a diet consisting largely of starch and sugar we must not conclude that to adopt a similar diet will therefore bring salvation to a weakling already in difficulties with its digestion. Yet this is the procedure again and again adopted by mothers and nurses, and it is the argument constantly reiterated by proprietors of special foods.

Proprietary foods have a distinct field of utility among a community which is not skilled in the difficult art of cookery for young children. We find in them an easily available and perfectly successful means of combating the ill effects which I have tried to describe as resulting from an exclusive milk diet. If we remember that most of them are composed preponderatingly of carbohydrate of one or other

* An address delivered before the Camberwell Division of the British Medical Association.

sort and that therefore they have the drawback that they are liable, in those infants whose carbohydrate tolerance is small, to produce fermentative dyspepsia, diarrhoea, vomiting, colic, and excoriation of the buttocks, we shall be in a position to make use of them to attain good results without endangering the stability of digestion.

We may divide the foods into seven groups:

1. *Condensed Milk with a High Percentage of added Cane Sugar.*

Sweetened condensed milk is enormously popular among the poorer classes; it is cheap, it keeps for a long time, and it is easy to prepare. If one heaped teaspoonful is mixed with 3 oz. of water, a mixture containing approximately 1 per cent. fat, 1 per cent. protein, and 5 per cent. sugar results. During the first two months of life infants often show a marked intolerance for cow's milk, occasioned by their inability to digest the comparatively high percentage of fat, with the result that vomiting of curd is extremely common. On the other hand, upon a mixture with a low percentage of fat and a high percentage of sugar, such as sweetened condensed milk, they often thrive well. The danger lies in the increasing tendency which the child shows to develop fermentative dyspepsia as its growth calls for an increased concentration and larger amounts of food. I find, too, that mothers frequently add to the risk by adding still further amounts of cane sugar. In children over 6 months the extremely low fat content is very liable to produce rickets.

2. *Condensed Milk without added Sugar.*

This consists of milk condensed in a vacuum to a third of its bulk. By the addition of water a mixture of approximately the same composition as milk can be obtained. For some reason or other, probably because it does not keep so long as the sweetened variety, it has never been popular, and it is sometimes difficult to get shopkeepers to stock it. There may, however, be a further explanation for this unpopularity in that unsweetened condensed milk does not differ sufficiently in its composition from fresh milk to make its substitution haphazard a procedure likely to bring about improvement. The not infrequent good results achieved by the sweetened variety are, as I have said, due to the accident that in many young infants there is an idiosyncrasy against fat, while the power of digesting sugar remains good. Such infants are, therefore, well suited by the change from cow's milk to a sugar-rich diet such as sweetened condensed milk. Unsweetened condensed milk, on the other hand, is nearly as rich in fat as fresh milk, and contains no more sugar. It is very useful when a supply of pure milk cannot be obtained, as in times of great heat or when travelling.

3. *Dried Milks.*

These are prepared by spreading a very thin sheet of milk over a heated metal plate, so hot that the milk is rapidly dried and converted into a powder. The composition of these milks does not differ materially from fresh milk, and in consequence their prescription does not as a rule show very marked therapeutic effects. I do not believe that dried milk is possessed of advantages over fresh milk, except, of course, in its relatively low bacterial content. If good fresh milk can be obtained its use is always to be preferred. In proprietary foods we are not seeking for a permanent substitute for cow's milk, but are prescribing for the time being a change in the diet with a definite therapeutic object. From this point of view foods under the headings 2 and 3 are of little service.

4. *Dried Milks with added Malted Sugar.*

Such preparations are undoubtedly very valuable because of the high percentage of malted sugar which they contain. All sugars are not equally liable to undergo fermentative changes, and to give rise in consequence to diarrhoea and vomiting. Undoubtedly the least liable is maltose, just as cane sugar is at the other extreme and is the worst offender in this respect. While comparatively poor in fat, these foods have a high carbohydrate percentage, while at the same time they are free from added cane sugar. They are therefore often very useful in the dyspepsias produced in very young infants fed upon cow's milk with its relatively high percentage of fats. In older children they are too poor in fats unless used in a concentration which raises the percentage of sugar to a dangerous height. They have the further drawbacks of being relatively expensive and of permitting the development of scurvy.

5. *Pure Malted Sugar.*

If a child is convalescent from an attack of fermentative dyspepsia, or if it is known that its tolerance for sugar is permanently low, we should choose a malted sugar in preference to lactose or cane sugar.

6. *Foods consisting almost entirely of Unaltered Starch.*

Such preparations are specially useful for children over 7 months of age. In the later months of infancy it is often wise to make use of the growing power of the child to digest starch rather than to run the risk of producing diarrhoea by giving large amounts of saccharine matter. After 9 months of age a second form of carbohydrate in the form of starch should always be given. For young infants these foods are quite unsuitable.

7. *Foods consisting of Mixtures of Unaltered Starch and Malted Sugar.*

Many of these foods contain a ferment which is capable of converting starch into sugar, and the amount of this conversion to some extent depends on the length of time during which the milk mixture is allowed to simmer by the fireside. By diminishing this gradually we can attempt to train the infant's powers of starch digestion.

These are the classes of food at our disposal, and by an intelligent use of them much can be accomplished. Unfortunately mothers and nurses, relying on the extravagant claims of proprietors, are apt to prescribe them absolutely at random without the least appreciation of their composition or properties. Often each is tried in turn, in the hope, too often fallacious, that one will eventually be found to suit. Before this happy result is reached, if it ever be reached, very often an enormous amount of harm and suffering is caused. To give a young infant suffering from the effects of sugar excess a proprietary food in which this particular fault is accentuated, is often to cause a serious danger to life itself.

### Treatment and Diet.

The infant with green watery stools, vomiting, colic, ulceration of the buttocks, and a slightly raised irregular temperature benefits almost always by a change to a whole-milk diet. Such infants are commonly fed on proprietary foods containing a gross excess of sugar or starch, or upon a milk mixture to which large amounts of cane sugar have been added. One attack predisposes to another because the tolerance for sugar is lowered long after convalescence is established. In hot weather, because his food and drink are bound up in the same fluid, the child, rendered thirsty by diarrhoea, vomiting, and perspiration, is apt to take excessive amounts of his sugary diet.

Treatment should be instituted by a purge and by twenty-four hours' starvation. During this time boiled water sweetened by saccharine alone is allowed. In severe cases the stomach and bowel may be washed out with a weak solution of sodium bicarbonate. A few drops of hydrochloric acid—acidi hydrochlor. dil. ♏xxx–xl, mucilag. ʒss, syrup. simplicis ʒss, aquam ad ʒiv, two teaspoonfuls every four hours—are extremely useful in controlling the fermentative process in the stomach. In all these cases the absence of free hydrochloric acid from the stomach plays an important part in the production of the excessive fermentation. When the symptoms improve, feeding may be begun again by giving small amounts of boiled milk undiluted except in the case of the very youngest infants. One ounce of this may be given at first every four hours. If the infant, used to the taste of the much sweetened food, will not take the plain milk, it may be sweetened with saccharine. About $\frac{1}{30}$ grain of saccharine is equivalent in sweetening power to a teaspoonful of cane sugar. During these days of underfeeding the needs of the child for fluid must be met by the provision of a plentiful supply of

water, and care should be taken to see that he is kept very warm. Gradually the amount of milk taken may be increased, but any diminution in the interval between the feeds should be avoided for some time, because the treatment aims at allowing the stomach to empty itself completely between meals. Only in this way can the fermentation be controlled. In very severe cases the cream should be removed from the milk. Sometimes further amounts of proteid may be given by the addition of somatose or plasmon. The principle underlying all these prescriptions is that no acid fermentation is possible on a purely protein diet. After recovery from the attack of diarrhoea, the child may sometimes be kept for a long time upon this diet of whole milk and continue to thrive. In other cases the addition of some carbohydrate feeding becomes necessary.

The troubles which manifest themselves on a diet of pure cow's milk are of two sorts. In the first place, very many young infants manifest a complete inability to digest the fat of cow's milk, even in great dilution. Such babies suffer from profuse vomiting, often of curdled milk, and are either constipated or pass bulky white, greasy, foul-smelling stools. Upon a change to a fat-poor, sugar-rich diet the symptoms usually cease at once. A similar fat indigestion, with vomiting, colic, and constipation, is usual with very young infants nursed every two hours at a freely flowing breast, with abundance of rich milk. Less frequent nursing and the provision of a little sugar will usually cure the vomiting and constipation.

In the second place, many babies fed on cow's milk, although they are free from diarrhoea and vomiting, remain small and ill developed. I have seen infants who for months showed no gain in weight, although they were daily taking enormous amounts of milk of good quality. These children are pale, flabby, and constipated because the volatile acids present in such excess in the sugar-fed child, and which form the natural stimulus to peristalsis, are reduced to a minimum. The stools are large, bulky, and pale when the percentage of fat is high, or hard and pellet-like when the milk is poor in fat, and are always alkaline to litmus. In such cases the addition of carbohydrate produces immediate improvement. In young infants the use of a malted sugar or of a dried milk with added malt is indicated. At 6 months one or more feeds made with the addition of some starch-containing food may be advisable, and substituted for a similar number of pure milk feeds. After 6 months it is found over and over again that infants who immediately react to increase in the amount of sugar with diarrhoea will tolerate starchy forms of carbohydrate perfectly well. Finally, it may be said that extract of malt agrees well with the milk-fed baby, but aggravates the disturbances of sugar-fed children, while cod-liver oil has properties just the reverse.

The disorders of sugar over-feeding are much more common among the poor than among the well-to-do. There are few infants in the hospital class who do not at some time or other suffer in this way, and we have here, I think, the explanation of the undoubted success of whole-milk feeding among them. Among the upper classes fat over-feeding from the use of a milk rich in cream is more common, and there is a distinct tendency at present to adopt the principle of giving undiluted milk without diminishing the bulk of the feeds and increasing the intervals between meals proportionately. Among these children the substitution of a suitable form of carbohydrate for the large amounts of fat consumed is sure to produce benefit in more rapid growth and in the disappearance of constipation. In infants habitual constipation, like habitual diarrhoea, is seldom to be treated by drugs, but is often to be looked upon as a symptom indicating a faulty composition of the food calling for the prescription of a change in the diet upon the lines indicated. The use of large doses of castor oil and of opium in young infants is generally to be avoided because such drugs mask the very symptoms which should guide our prescriptions, and introduce factors disturbing to our observations.

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THE first meeting of the Swiss Surgical Society, founded last year, was held at Berne on March 8th. Professor Kocher, of Berne, was elected president; Professor Girard, of Geneva, vice-president; Dr. Steinmann, of Berne, secretary.

## PREVENTION VERSUS CURE IN MODERN PRACTICE.

By CHARLES J. WHITBY, M.D.CANTAB.,
BATH.

THE President of the British Medical Association, in the address which he delivered at Liverpool on the occasion of the annual meeting, foretold the coming of a new era, in which the practice of medicine will be devoted largely, and increasingly to the prevention rather than the cure of disease. I mention this in order to emphasize the fact that it is not necessary to be an admirer of the National Insurance Act—of which, indeed, Sir James Barr has been one of the most outspoken opponents—in order to realize the proximity and inevitableness of this new era. Still, it remains true, and is not without significance, that the Act does provide for the payment of medical men for attendance on a large section of the community upon what is intended to be a preventive basis. I confess to grave misgivings as to whether the intention will be fully realized, because it does not seem to me that the conditions of genuinely preventive practice are met by the provisions of the Act. But the intention is there, and may be taken for what it is worth as a sign of the times and, we will hope, of better things to come. It seems to me, therefore, a timely proceeding to consider what are, as a matter of fact, the main conditions of success in the translation of medical practice from the mainly curative to the mainly preventive sphere, and to what extent these conditions already are or are in a fair way to be met.

To begin with such conditions as affect the profession as a whole, not as mere individuals, it seems indispensable that it should be functionally organized throughout in such a way that its ultimate resources of science and art shall be available at need for each and every case that may arise. This, I need scarcely say, is at present very far from being so: and in so far as it is so, the credit belongs in the main not to the State or the community but to the profession itself. We have done our best to arrange that the wisdom and skill of our wisest and most skilful shall be at the free disposal of those who cannot afford to pay for them. But there is a limit to the possibilities of charity, and, since those whose need is the sorest must be conceded the first claim, it inevitably happens that the resources of general and special hospitals are exhausted in the task of patching up more or less hopelessly damaged organisms rather than in the detection and stamping out of the insidious beginnings of disease. So far as charity is concerned, all the time and knowledge and skill that we can afford to give away are fully occupied at present in the curative sphere; of the attempt at prevention it is as yet futile even to dream. Yet it is, at all events, a hopeful sign that during the past three years the organization of the profession has advanced by leaps and bounds. It is as yet merely an economic and defensive organization, analogous to that of the trade unions; but I do not believe that it will stop there. Functional organization is bound to follow, and, if we are wise, will proceed upon lines governed by the preventive ideal. By functional organization I mean an arrangement by which every malady shall be recognized in its incipient stage by the regular attendant, and, if it be of a nature whose treatment falls without his province, referred to the proper quarter, where State-aided or other provision shall be made for its needs. The germ of such an arrangement may be recognized in recent suggestions that the out-patient department of hospitals, as at present constituted, be abolished, and that only consultative work and special forms of treatment be undertaken in its place. But the subject is too large for detailed discussion in a short paper—it is a matter for collective investigation, and one which the Association itself will probably have to take seriously in hand before very long.

To come now a little more to close quarters with our subject, it is obvious that the transition from the mainly curative to the mainly preventive aim in medical practice involves not merely a shifting of the general and individual points of view, but also a new standard of values as regards the theoretic basis of our work. Physiology

and hygiene must be elevated to the seats of honour; pathology and therapeutics must be content with lower places in medical esteem. This may seem a hard saying, but it is beyond question the logical consequence of the admission that prevention is better than cure. It does not necessarily, I think, involve the paramountcy of the public health service. That is concerned mainly with such minimum requirements as good housing, pure water, an uncontaminated milk supply, the notification and isolation of infective diseases—all highly important matters, but matters upon which all enlightened minds are practically agreed. There can be no health without the conditions for whose maintenance the public health service is responsible; it does not follow, however, that there will be satisfactory health when its task is done.

A community is made up not of average or typical units but of infinitely diverse individuals with infinitely diverse requirements from the health point of view. The average citizen considered and legislated for by the framers of health laws is no less mythical than the "producer" and "consumer" of political economy. The physiology and hygiene upon which preventive practice will be based will have to take account of idiosyncrasy just as curative practice takes account of it now. Generalizations may be unavoidable, but they must not be rash or premature, and must be based on the natural history of genuine types. By anthropometrical methods, aided by psychological acumen, we shall probably arrive in time at some sort of a classification, which may have important practical effects from the sociological point of view. For instance, it would not surprise me greatly if research along these lines were to result in a scientific vindication of the ancient caste idea, leading possibly to its re-establishment in a suitably modified form. For I confess to the belief that individuals fall naturally into distinct groups or strata, differentiated by inborn temperaments and capacities; and that, from the health point of view—to say nothing of happiness—it is indispensable that such matters be very much more seriously taken into account in the choice of a given individual's vocation than is at present the case. Here, then, is one among many matters in relation to which the preventive practitioner of to-morrow may find ample scope for his erudition and insight, however great these may be. Wherever he finds a round peg in a square hole, it will be his duty to call the attention of the powers that be to the danger of disease and breakdown that such a predicament, at least in extreme cases, undoubtedly involves. The economy of life and ability is a matter of vital concern to every civilized commonwealth. Unfortunately this obvious truth is far from being realized to any adequate extent as yet; it is for us, therefore, to make it known.

But these remarks are a digression from the subject of the theoretical basis of preventive practice, to which I wish for a few moments to return. It is a curious example of the way in which, during transition periods, all things work together for a common revolutionary end that the boundary line severing physiology from pathology seems to be rapidly becoming invisible. It is impossible, or soon will be, to say where one ends and the other begins. The time has long passed when it was customary to think of disease as a something extra-natural—a visitation of the invisible—to be combated by amulets and spells. But the traces of this conception have lingered until quite recently in the minds of even the most enlightened. Now they are well-nigh obliterated; pathologist and physiologist, tunnelling in opposite directions, have met on common ground. We think of disease in terms of health, and of health in terms of disease. Health seems to be in the main conditioned by the functional equilibrium of various glands; and since now one, now another of these glands takes the lead and evokes the antagonism of the others as the rhythm of growth and development proceeds, it is hardly too much to say that, from the chemico-vital aspect, a series of autointoxications, followed by slowly acquired immunities—that is to say, of illnesses and recoveries—is the normal course of events. Dentition, puberty, adolescence, menstruation, sex life, the climacteric, afford, even in the healthiest individuals, common ground for the physiologist and the pathologist. There is a pathological factor in all health, and a physiological in all disease; the two conditions overlap, and merge into one another by imperceptible gradations.

So preventive and curative medicine meet when a disease due to functional inhibition of a given set of glands is treated by the administration of full doses of the missing internal secretion, thus affording immediate relief of symptoms as well as the interval of rest required by the damaged organs. Much of modern surgery belongs equally to the preventive and curative spheres. Metchnikoff has gone so far, I believe, as to advocate the systematic removal of the large intestine, which he regards as a retrograde, functionally useless structure, and a source of real danger to its possessor. Professor Keith declines to follow him all the way in this drastic proposal, so that I think we may not promise our surgeons this fine field of adventure in the near future. But obviously such common procedures as the removal of adenoids from the naso-pharynx, of a chronically inflamed appendix, even of an early malignant growth, are items of preventive practice. And the scope and possibilities of such preventive surgery are extending yearly.

A very important branch of preventive practice, in regard to which a satisfactory theoretical basis is, however, still mainly to seek, is the regulation of diet. We all have our notions about diet; we all accept, because we cannot do otherwise, the responsibility of forbidding this or that to our gouty, rheumatic, rheumatoid, pyrexial, or diabetic patients, and permitting other things. But how many of us are prepared to justify on scientific grounds either our sanctions or prohibitions? The voice of the food reformer is loud in our midst; his proposals become every year more iconoclastic. There is hardly a single article of common food, not excepting the "staff of life" itself, which has not been condemned as deleterious to health by one or another section of lay opinion. But so far as we as a profession are concerned, with the exception of one or two individuals like Dr. Haig and Dr. Campbell, there are no signs of any live interest in this very important and indeed urgent subject. Surely it is high time that an organized effort were made to grapple with some of the many problems connected with dietetics and to solve them satisfactorily. It seems to me pre-eminently a matter for collective investigation; and now that our Association is to some extent relieved from the uncongenial task of a quasi-political campaign, I hope that it will take up this kind of work in earnest. It is probable that, not merely for every kind of work, but also for every constitutional type, there is a diet conducive to maximum health and efficiency. Some kinds of food may be conducive to mere longevity, others to mental or muscular energy, others again to reproductive or combative power. Such generalizations, if they could be arrived at and justified, would be of the greatest possible aid to every practitioner, and of real national utility.

No paper dealing with the preventive aspect of medicine could omit mention of the all-important problems connoted by the term "Eugenics." For prevention begins too late if it begins only at birth; it must aim at the eradication and replacement of those morbid inborn tendencies of which actual disease is the issue. The term "Eugenics" is at present used to designate both the scientific study of heredity and the application of its principles to the improvement of a given stock. It would be better to apply the term "Genetics" to the purely scientific branch of such investigations. "Eugenics" is the name proposed by Galton for the systematic attempt at the betterment of the human stock. Genetics is a science; Eugenics is, or may become, an art based thereupon. And Eugenics may be subdivided into two forms, negative or positive, according as it aims merely at the prevention of unfit or the promotion of desirable births. Into the subject of Genetics it is impossible for me to enter here, but those interested therein will find an excellent account of some typical research work in a volume entitled *Heredity and Eugenics*, recently published by five investigators connected with the University of Chicago. It was reviewed in the BRITISH MEDICAL JOURNAL for November 30th, 1912. With regard to the eugenic ideal, the first desideratum, according to Sir James Barr, is the frank recognition of the need of a new racial morality and of the responsibility of medicine for the interests of the race, as well as and in precedence of those of the individual. Galton went even further, insisting that the task of

deliberately and systematically furthering human evolution should be regarded as a religious duty; and, in my opinion, rightly; for where the control and guidance of so powerful an instinct as that of reproduction is in question nothing short of an appeal to the deepest of all motives is likely to prove effectual. Morality is based upon religion; and the first cannot be changed unless and until the second has been modified. In the sphere of negative eugenics something may no doubt be done by legislation, by prohibiting reproduction in cases of sheer imbecility and idiocy. In fact this is already being attempted. But this is a rudimentary matter; on the other hand, the new racial morality advocated by Sir James Barr will, if I be not greatly mistaken, prove a much more formidable proposition. It will winnow the community, and in particular our profession, from top to bottom, severing the husk from the grain.

That the transition from the curative to the preventive aim in medicine will be a slow and gradual one goes without saying; so far, then, as the immediate future is concerned it admits of no laxity in regard to matters therapeutic, but, on the contrary, demands from the practitioner, in addition to all past requirements, a new alertness as to the possibilities of personal hygiene, mental and emotional as well as physical, an intelligent interest in sociology, and the cultivation of an evolutionary conscience, based on study of the conditions that will make or mar the future of the race. Preventive practice is not likely to prove easier than curative practice, nor less attractive to a high type of personality.

## A CASE OF CHRONIC PLUMBISM IN WHICH MULTIPLE ANEURYSMS OCCURRED.

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THE following notes of an interesting case that died in the Chesterfield and North Derbyshire Hospital bring out in a very remarkable way the close association between the occupation of painter, attacks of colic, chronic interstitial nephritis, atheroma, aneurysm, and the simulation of intestinal obstruction.

I am indebted to the house-surgeon, Mr. F. C. Pridam, for the following facts, which he obtained from the patient and his friends upon admission and subsequently, and also for making of the *post-mortem* examination, at which I was present.

The patient was a man 44 years old, whose occupation for thirty years had been that of a painter. He stated that he had had several attacks of lead colic, evidenced by severe headache, constipation, and abdominal pain of a colicky nature, relieved by pressure. He thought he was healthy except for the fact that micturition was frequent during night time.

On February 18th, 1912, he was attacked with severe pain in the head and abdomen. He vomited and became giddy. Two days later he had a slight attack of haematemesis, and later on melaena was present. The bowels had previously not acted since February 18th. This pain and constipation continued until his admission into hospital on February 25th as a case of subacute intestinal obstruction.

He was a pale, anaemic-looking man. He was apathetic, lying on his back listlessly, and appeared indisposed to answer questions, though he did answer when spoken to.

The apex beat was in the fifth space just external to the nipple line; it was forcible. The exact area of cardiac dullness was not noted. There was a loud systolic murmur at the apex traceable outwards towards the axilla, and a loud systolic murmur heard best at the aortic cartilage, but traceable down the sternum. Capillary pulsation was absent; there was no dullness over the second and third cartilage. There was evidence of emphysema, but no other pulmonary abnormality.

The pulse was high in tension and poor in volume. The walls were not felt to be thick. The tension of the left posterior tibial artery was thought to be greater than the tension in the right.

The abdomen was thin; the skin on its surface was easily picked up and lacking in elasticity. A tumour, which was thought to pulsate, was felt below and just to the right side of the umbilicus; marked pulsation could be felt above the umbilicus. Mr. Pridam was of opinion that both these pulsations were expansile. The intestinal coils were slightly distended; nothing abnormal could be detected on percussion; the liver and spleen were not felt. On auscultation a loud systolic murmur, traceable upwards and downwards on the abdominal wall, was heard over the tumour.

The nervous system, as far as it was examined, was normal; Argyll Robertson pupil was not present; the teeth were absent from the upper jaw, and there was pyorrhoea in the lower. There was no blue line. Urine: specific gravity 1015, acid, no sugar, no albumen, and no incontinence. There was no sign of specific disease nor any history thereof.

We had to decide whether the patient was suffering from some slow-growing neoplasm, causing abdominal pain for some time, and then producing more obstruction, leading to vomiting, blood in the motions, and afterwards to constipation, with distended small intestine. The lump in the region of the caecum, if not the neoplasm itself, might have been due to the secondary enlargement of glands, the pulsation of the right common iliac artery being transmitted through it.

If this diagnosis were accepted, immediate laparotomy would be called for. The alternative diagnosis was an aneurysm of the right common iliac artery. The man's occupation was one which predisposes to arterial degeneration; the aortic murmur suggested much atheroma of the aortic orifice, and he was, therefore, a likely subject for aneurysm. Mr. Pridam was quite certain the tumour was expansile, as an aneurysm would be, and though I could not myself be quite definite on this point, there was no mistaking the systolic bruit over it, nor the difference in the pulsations of the two posterior tibial arteries. Melaena may occur in patients with abdominal aneurysm, and hence this symptom did not necessarily weigh in favour of growth. As the bowels were moved twice as a result of two enemata soon after admission (the motions contained a little mucus) I decided on the diagnosis of aneurysm of the right common iliac artery.

He was kept at rest in bed and given potassium iodide gr. x three times a day. This produced a rash which cleared up when the dose was doubled, leaving a little erythema.

He lay in bed, taking very little interest in anything, until March 1st, when it became more difficult to induce him to answer questions. Next day he was still more drowsy and apathetic; he fainted on sitting up, and showed a tendency to mental wandering. The iodide was stopped.

On March 5th hiccough commenced and he was much more drowsy. The rate of the pulse was increased but its volume diminished. The abdominal tumour still felt and the amount of urine passed was scanty. On the next day the abdomen became tender and swollen. The pulse at times was scarcely perceptible. The heart sounds were as before except that the aortic systolic murmur was more difficult to hear. Urine 1015, acid; no reduction of lead salts with potassium iodide. The patient had had incontinence for several days.

On March 7th, at 3 a.m., after a feed the pulse disappeared and respiration, which had been slow, stopped. After about ten minutes the pulse started again for one or two beats, but death then ensued.

*Post-mortem Examination.*

The lungs were emphysematous. Pleura very adherent at bases and posteriorly. Apices free.

*Heart.*—Left ventricle thickened; muscle wall very hard. Right ventricle large and flabby. Very little blood in any part of heart. The aortic, tricuspid, and pulmonary valves were competent. Mitral regurgitation was present. The *aorta* was markedly atheromatous, and there was present a large dissecting aneurysm extending the whole length of the ascending arch, which was itself much elongated. Vessels were filled with old and new clot. There was an *aneurysm* of each common iliac artery filled with clot. The left external iliac artery was very much thickened and hard. The inferior vena cava contained recent blood clot past the renal veins to the common iliac veins.

The *liver* was large and fatty; the spleen was small.

*Kidneys.*—Soft capsule, stripping fairly easily; cortex diminished in size.

*Intestine.*—Bluish-black. The large intestine was distended up to the splenic flexure, where there were a few adhesions. There was no growth and no obstruction.

Specimens of intestine and kidney were sent to the Clinical Research Association, which reported on them as follows:

"A minute trace of lead was found present both in portion of kidney and of intestine. Histologically, the kidney shows a very marked condition of chronic interstitial nephritis. There is a great increase of intertubular fibrous tissue. The glomeruli show typical changes and some minute cysts are formed. These appearances are consistent with those seen in the kidney of those suffering from chronic plumbism."

This patient was therefore proved by *post-mortem* examination to have suffered from: Chronic plumbism, chronic interstitial nephritis, mitral regurgitation, marked atheroma of the aorta, dissecting aneurysm of the arch of the aorta containing old and new clot, two aneurysms of the common iliac artery, thrombosed inferior vena cava, fatty liver, and a trace of metallic lead in kidney and intestinal tissues.

The explanation of what happened whilst he was alive in hospital was, I think, that the complete rest in bed, possibly together with the iodide, promoted the formation of blood clot in the thoracic aneurysm. This would have the effect of making the lumen smaller and so decrease the blood supply to the rest of the body; urinary secretion would therefore be diminished with consequent early uraemic symptoms; apathy and drowsiness, inclination to easily faint, would correspond to a low blood pressure, consequently a diminished pressure of blood in his brain. Then suddenly a piece of the clot totally obliterated the aneurysm, stopping the passage of blood, with consequent arrest of the heart.

Abdominal aneurysm is rare, but a case in which two are present is rarer still. This rarity, together with the occurrence of thoracic aneurysm, as well as the numerous other morbid conditions, most, if not all of them, traceable to his occupation, is my reason for publishing these notes and observations.

## UNUSUAL FERTILITY IN SYPHILITIC PARENTS, ASSOCIATED WITH ANOMALOUS INVOLVEMENT OF THE CHILDREN.

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IT has been suggested by Wassermann[1] that the serum of every woman admitted to a lying-in hospital should be tested. Mott[2] suggests that a Wassermann reaction should be done on all infants born of parents who are syphilitic or who are suspect, whether the infants present symptoms or not. If these suggestions were adopted probably a large proportion of positive results would be obtained in cases which presented no other evidence of syphilis.

So far there are few records in which an examination of children who did not present syphilis has been carried out. We find, however, that Churchill[3] has investigated 102 cases of infants and children in an American children's hospital—cases in which syphilis was not suspected—and obtained a positive Wassermann reaction in 39 cases. Findlay and Watson have shown the importance of recurrent eczema oris in cases of congenital syphilis.[4]

Since the discovery of the reaction introduced by Wassermann, Neisser, and Bruck over five years ago, it has been shown that a positive result is practically specific for syphilitic infection. It is known, however, that positive results are obtained in framboesia and leprosy, and perhaps in malaria and trypanosomiasis. Such diseases are tropical, hence a positive result in this country is taken to mean infection with the *Treponema pallidum*. The value of the reaction cannot be overestimated in latent syphilis and in cases of paroxysmal haemoglobinuria.[5] In mild cases of congenital syphilis the disease soon passes into a latent stage, and for a time there may be no other evidence of syphilis; the symptoms have been regarded as "hives" by the mother and medical opinion has been passed over.

I have had the opportunity of examining a large number of children in which there were no stigmata of syphilis at the Royal Hospital for Sick Children, Glasgow, yet among such I have found a large number who gave a positive result. It has been the custom to examine, whenever possible, the parents and other members of the family, as the examination of such groups of related cases has been found to yield results of very great clinical interest. Where a positive result has occurred in a child it has rarely happened that every other member of the family was negative.

In all cases the family history and physical condition have been carefully investigated, and the Wassermann reaction has been carried out according to the method of Browning, Cruickshank, and Mackenzie.[6] In the investigation of the family history there are certain difficulties. Some mothers are not at all anxious to lay bare facts which happened before or even after marriage. Others have had such slight manifestations of disease that they did not regard them as of a venereal character. It is always important, in my opinion, to ascertain if the parent had any irregular habits before marriage. In the case of either parent a history of taking alcohol to excess before marriage suggests other irregular habits.[7] A neurotic condition is always suggestive, as I have found a large percentage of positive results in that class where there was nothing further to suggest syphilis.

At present I wish to put on record an investigation into the condition of a single family. There are various points of interest, and I shall give details of each member in turn. The family was that of a wandering gipsy found in the slums. The mother brought up one of her children for examination. The child had multiple dactylitis. Examination of the condition led to the conclusion that the child was suffering from syphilis, though there was no other evidence, the mother being apparently healthy and denying that she had ever had venereal disease. Each member of the family was then examined and the blood of each drawn off for a Wassermann reaction.

The mother, aged 21, a woman of average height, intelligent, well nourished, but very dirty, was born and brought up in Russia, but had been in this country since her marriage in 1910. She gave a negative history, stating that her health had always been good; she had never suffered from any eruption, loss of hair, or sore throat. On physical examination, her teeth seemed normal and in a good state of preservation. There were no scars on the body and the superficial glands were not palpable. On the right labium majus, however, there was a definite scar. Questioned about this, she said she thought there was a "pimple" there soon after marriage, but she did not associate it with venereal disease, and still was firm in her belief that she never had had venereal disease. Since her marriage in 1910 she has been thrice pregnant, and each time has given birth to twins. There have been no miscarriages. The first children were born seven months after her marriage; she stated spontaneously that their birth was two months premature. The second children were born eleven and a half months afterwards at the eighth month, while the youngest children were born ten months after the second pair, they also being born at the eighth month. The youngest children were born in Ireland on September 14th, 1912. Thus the mother has given birth to six children in twenty-two months—the first being born in November, 1910, and the last in September, 1912.

It is of interest to note that all the children, according to the mother's statement, which appeared to be accurate, were born prematurely. Owing to the fact that a multiple pregnancy frequently ends in premature expulsion, it is difficult to form an opinion as to whether syphilis had anything to do with premature labour; but, nevertheless, it will be observed that the first pregnancy resulted in expulsion of the twins at the seventh month, whereas her succeeding pregnancies ended one month later. On the other hand, it should be observed that the first twins were of normal size, while the other four children, born one month later, were small as compared with the first children.

The father, aged 29, was born in Russia, and, like his wife, lived there till his marriage. Since then he has been all over the British Isles. He makes tin cooking utensils. He denies ever having had venereal disease. He denied ever having had any eruption, any sore throat, or that his hair ever fell out. His general appearance caused one to doubt his truthfulness, and as he gave a history of alcoholic excess we subjected him to a most minute physical examination. His teeth were well preserved and appeared normal. All superficial glands were indurated and readily palpable, especially those in the groin. There was a small scar on the penis, but no scars in the groin. Questioned minutely about the scar on the corona glandis, he said it was not venereal, though he "skinned" the organ two years before marriage, and it "festered" and took some time to heal. However, he maintained that it was not a venereal sore. At that time also he had sore eyes, but never any headache. At the time of examination the pupils were small, equal but irregular in outline, and reacted sluggishly to light. Knee-jerks were in excess. Babinski's sign was negative. His speech was slow and hesitating. There was a tremor of the lips and he was easily excited. His ideas seemed slightly exaggerated. Indeed, though not certifiable, he seemed a case

of very early general paralysis of the insane. From the history it would appear that he was infected before marriage, and this we consider of importance in view of what will be found in the history of the first twins.

*First Twins.*—B. (girl) and S. (boy), aged 1 year and 11 months. Both children seem in perfect health, being well nourished and free from evidence of syphilitic stigmata. Both parents state that these children never had any eruptions after birth.

*Second Twins.*—W. and M., aged 11 months, both females. The former was the child brought to me with multiple dactylitis of phalanges of second right and third left fingers; third right and third and fourth left toes. There is no evidence of suppuration and no evidence of thickening of the metacarpals or metatarsals. The other child has thickening of both humeri and of the right femur and left fibula (it being thicker than the tibia of that side). The thickenings are more nodular than spindle-shaped and are multiple. The parents state that both these children had slight eruptions on the buttocks at six weeks, but no peeling of skin of palms or soles. The former had difficulty in breathing by the nose.

*Third Twins.*—A. and J., aged six weeks, both males. Both children have condylomata of anus, sore eyes, peeling of skin of hands and feet. The former has marked fissuring of the lips, an eczematous patch at the right side of the nose, and marked snuffles. The latter has a marked coppery eruption on the nates and the line of junction of mucous membrane and skin of lower lip is very irregular. He also has snuffles.

I examined the serum of the parents and children, and in each case obtained a very marked positive result.

Table showing Result of Examination of Serum of Parents and Children.

*Date of Wassermann Reaction, October 30th, 1912.*

| | Doses of Complement. | | | | | | |
|---|---|---|---|---|---|---|---|
| | 3 | 4½ | 7 | 10 | 14 | 1¼ | 2½ |
| | Lecithin and Cholesterin Emulsion. | | | | | Serum Controls. | |
| Father ... ... | 0 | 0 | 0 | v.f.tr. | v.f.tr. | m. | j.c. |
| Mother ... ... | 0 | 0 | 0 | 0 | d. | tr. | j.c. |
| B. ... ... ... | 0 | 0 | 0 | f.tr. | d. | tr. | v.m. |
| S. ... ... ... | 0 | 0 | 0 | 0 | 0 | tr. | v.m. |
| W. ... ... | 0 | 0 | 0 | 0 | 0 | tr. | a.c. |
| M. ... ... ... | 0 | 0 | 0 | 0 | 0 | tr. | a.c. |
| A. ... ... ... | 0 | 0 | 0 | f.tr. | tr. | tr. | a.c. |
| J. ... ... ... | 0 | 0 | 0 | 0 | 0 | d. | j.c. |
| Negative control | c. | c. | c. | c. | c. | v.m. | c. |

0 = No lysis. tr. = Trace. f.tr. = Faint trace. v.f.tr. = Very faint trace.
d = Distinct. m = Marked. v.m. = Very marked.
a.c. = Almost complete. j.c. = Just complete. c. = Complete.

From the public health point of view it is of importance that something should be done to control the movements of such wanderers, to prevent their making cooking utensils and selling them to rural people who do not always cleanse such dishes before use, to prevent gipsies begging food from farmers and using the dishes of the latter, lest this be a source of infection which hitherto has been overlooked. Let there be an examination of every child born in this country of every foreigner who arrives; make syphilis and gonorrhoea notifiable diseases, and not only will there be less of the parasyphilitic diseases, but there would soon be a marked reduction of syphilis itself.

### Summary.

There are various points of interest in these cases:

1. Both parents deny specific disease.
2. Both show evidence of syphilis which is only revealed on very minute physical examination.
3. Parents and children all give a positive Wassermann reaction.
4. Manifestations of syphilis appear to be more severe with successive pregnancies.
5. There have been no abortions.
6. Successive multiple pregnancies.
7. Six children born in twenty-two months.

References.

[1] Dean: *Journal of Children's Diseases*, September, 1912, p. 395. [2] Mott: *Proceedings of the Royal Society of Medicine*, October, 1912, p. 81. [3] Churchill: *American Journal of Children's Diseases*, 1912, p. 363. [4] Findlay and Watson: *Lancet*, March 29th, 1913. [5] Browning and Watson: *Journal of Pathology and Bacteriology*, vol. xvii, 1912, p. 117. [6] Browning and Mackenzie: *Recent Methods in the Diagnosis and Treatment of Syphilis*, chapter iv, p. 37. [7] Morris: *Proceedings of the Royal Society of Medicine*, October, 1912, p. 118.

## GONOCOCCAL URETHRITIS IN A BOY AGED SEVENTEEN MONTHS.

BY

ARCHIBALD SMITH, Ch.M.Manch., F.R.C.S.Eng.,

AND

C. S. McKEE, M.D.Toronto, M.C.P. and S.Ontario,

VANCOUVER, B.C.

F. P., aged 17 months, the child of parents in comfortable circumstances, was first seen on December 5th, 1912. The complaint was that he could not pass urine. On examination there was some redness at the end of the foreskin, which could, however, be retracted completely. A hot bath soon relieved his disability, and he was ordered local boracic fomentations and a dusting powder.

Circumcision was suggested, and approved by the father but objected to by the mother, and for the time refused.

Ten days later similar trouble caused another summons to the child. The local condition was now much aggravated, a typical balanitis being present, and the foreskin would not retract. Circumcision was now insisted upon, and performed next morning. Four days later a discharge from the urethra was noticed. A specimen was taken for bacteriological examination, treatment being delayed until the report was received and until the circumcision wound was more nearly healed.

A verdict from the bacteriologist of colon bacillus or staphylococcus infection was anticipated, but a verdict of gonococcus was almost incredible. A report by Dr. C. S. McKee on the bacteriological findings is appended.

The subsequent history of the case was uneventful. At first a mild lotion of zinc sulphocarbolate was used, but after a few days, as very little improvement was manifest, 1 per cent. cargentos, a colloidal silver preparation recently put on the market, was substituted. After five days discharge ceased, and treatment was continued a further five days; eight days later a slight recurrence of the discharge took place and treatment was resumed. All discharge ceased again in four days, but treatment was continued for a further seven days, with complete cure and no complications.

The rarity of this case makes it worth recording. The difficulty was to trace the source of the infection. No one but the mother and nurse had had access to the child. The parents were certainly not infected. The nurse is a respectable woman, but is a widow of about three years' standing, her husband having died six months after marriage of "rheumatism." She admitted having taken the child into her own bed when restless. The remaining links in the chain of infection can only be surmised, but it would appear as though the source had been traced. Moreover, there seems no doubt that it was a case of gonorrhoea from the beginning, the balanitis being secondary to the gonorrhoea, and not of urethritis consequent upon balanitis—a possible but unusual sequence.

### Bacteriological Report by Dr. McKee.

On examination of a smear of pus from the above case stained by Gram's method, I expressed the opinion that it was gonorrhoeal. The picture was typical of that disease in grouping of the organisms in the pus cells, their shape and staining qualities.

Doubt of the correctness of this opinion by the attending surgeon made cultures necessary, and these were made on various media, including a rather rich ascitic fluid agar to

which haemoglobin had been added, a medium I use altogether for the isolation of the gonococcus.

No gonococcus-like organisms grew on any of the media except the latter, and on this there developed a number of characteristic colonies, which on staining showed the usual characters of this organism. Subcultures of the pure growth mere made on the ascitic media, as well as on various others; only on the ascitic agar did any growth occur, and only a limited number of the colonies showed ability or desire to grow in subculture. Even those which did grow in subculture were very sensitive to their surroundings, and the one pure culture which I kept for stock, now in its sixty-fifth transfer, needs to be transferred every day or it will die. I have not been able to make it grow on any modification, even, of the original medium.

## TETANY IN ACUTE SUPPURATIVE APPENDICITIS IN AN ADULT.

BY

BASIL HUGHES, M.A., M.B., B.C., B.Sc., F.R.C.S.,

BRADFORD.

THE condition of tetany occurring in adults is not altogether common. Perhaps the commonest conditions with which it is associated are gastro-intestinal disorders (gastritis, dilatation of the stomach, and intestinal parasites), pregnancy, and operations upon the thyroid gland; sometimes it complicates the infectious fevers, notably typhoid. Less rarely still is it associated with certain poisons taken into the system, such poisons being lead, alcohol, and ergot. It is said to complicate cerebral and cerebellar tumour, but this must be extremely rare. Tetany associated with surgical operation upon the thyroid gland is a very rare condition, and I cannot recall a case out of a large number I have seen operated upon. It has been said that tetany occurring in this last named condition is due to removal of the parathyroid bodies, and experimental work seems to lend support to this statement. The following is a case of tetany associated with acute suppurative appendicitis.

A. C., aged 35, married, was admitted to the Bradford Royal Infirmary on December 19th, 1912, complaining of acute abdominal pain. The onset was very sudden, and she had vomited once a bile-stained fluid. She was admitted thirty-six hours after the onset of the pain.

*History.*

We found out that four years ago she had been seized suddenly with acute abdominal pain, not so severe as the present attack, but she gradually got better without operation. She was seen two years later by Dr. Manknell, of Bradford, and her symptoms resembled those of gastric ulcer. She had another attack between this last and her present one, and again her symptoms suggested a gastric origin. She had suffered pain after food, constipation, and lassitude, and she was never well for any length of time. She had never had haematemesis, jaundice, or malaena. The urine was dark, but contained no extraneous matter.

*Condition on Admission.*

The temperature was 100°, pulse 112 and regular, respirations 24. The abdomen moved only slightly on respiration, and this on the left side only. There was a rigidity and general tenderness all over the right upper and lower abdominal quadrants. Pain was noticed on deep pressure in the right loin. The right flank was dull, the liver dullness was normal. On rectal examination, thickening and tenderness was found high up on the right side. The condition of acute appendicitis was diagnosed.

Two hours after admission the patient developed marked and typical tetany in both hands, and the pulse rose to 120. Her general condition suddenly became grave, and an immediate laparotomy was performed. She had never had tetany before.

*Operation.*

By means of the right rectus incision the abdomen was opened, and an appendix abscess containing about 2 oz. of stinking pus was evacuated. The appendix was retrocaecal, and its tip was bound down to the lower pole of the right kidney. There was a perforation about 1 in. from the end, and a concretion had escaped. The appendix was removed with some difficulty, and a large drainage tube inserted.

*After-History.*

The patient made an uneventful recovery, and left the hospital on January 5th, 1913. She had no return of the tetany while in hospital, and I hear from Dr. Manknell that she is now very well, and has been bothered in no way since the operation.

This case is interesting, as it is the only one I have been able to find in which tetany was associated with acute appendicitis. When the tetany developed I was naturally prompted to reconsider the diagnosis and to think that after all it might be some gastric lesion. Unfortunately, owing to the nature of the operation, I was unable to look at the stomach; but seeing that this patient has had no gastric symptoms since, that she has very much improved on her condition prior to operation, and has put on weight and enjoyed and felt ready for food, it is possible that the stomach itself was never at any time at fault. In view of the excellent exposition of this truth by Sir Berkeley Moynihan, whose words on appendix dyspepsia we are all acquainted with, and which surgeons must by now have confirmed, I think it is quite reasonable to attribute the condition of tetany in this case to a diseased appendix. How the tetany was produced, whether it was toxic or reflex, I am not prepared to say.

This case may perchance shed some light on other cases of tetany which may have been attributed to dyspepsia, gastritis, or other gastro-intestinal conditions, and in such cases a careful inquiry into the history and an examination to exclude the presence of a diseased appendix should be thought about.

## ADRENALIN IN CHLOROFORM ANAESTHESIA.

BY

H. T. DEPREE, M.B., B.C.CANTAB.,

RESIDENT ANAESTHETIST, ST. MARY'S HOSPITAL, LONDON.

THE following case seems to be worth publishing if only to emphasize a very real danger which is perhaps not as widely recognized as it should be.

The patient was a male aged 26, a well-developed and healthy man. The heart sounds were normal; the urine contained nothing abnormal. Operation for deflected nasal septum was decided upon.

Anaesthesia was induced by chloroform given upon a Skinner's mask, the induction taking about seven minutes and being unaccompanied by struggling. The patient was transferred to the operating table, and it was decided to inject some adrenalin into the nose subcutaneously. At the time of the injection anaesthesia was light (a brisk corneal reflex being obtainable), the pulse strong, and the patient's colour good. No more chloroform was given.

About one minute after the injection the pulse suddenly became very rapid and then imperceptible; at the same time the patient's colour became leaden grey and the pupils widely dilated. About three deep gasps were taken after the pulse had failed, and then respiration ceased.

The head was at once lowered, artificial respiration performed, and 1 c.cm. of pituitary extract injected hypodermically, and oxygen administered. Finally, an incision was made along the left costal margin and the heart was massaged through the diaphragm, but to no purpose; 5 minims of a 1 in 1,000 solution of adrenalin was used for the injection.

The nostrils had been plugged ten minutes before the induction of anaesthesia with a solution containing cocaine (10 per cent.) and adrenalin.

At the *post-mortem* examination nothing abnormal was found in any of the organs.

In the BRITISH MEDICAL JOURNAL (September 14th, 1912) Dr. A. Goodman Levy published the results of experiments he had made upon cats under chloroform anaesthesia with injections of adrenalin. He found that when the anaesthesia was light after the injection of small doses of adrenalin into a vein, a definite series of events followed: the heart first beat more rapidly and forcibly, but then inco-ordinately, and finally ceased, the effect of the injection being to bring about fibrillation of the ventricles. Under deep chloroform anaesthesia the effect was much less marked, and passed off after a few moments, the heart again beating regularly. Under ether anaesthesia no effect was produced. The case quoted above seems to correspond exactly clinically with Dr. Levy's experimental work.

In the *Proceedings of the Royal Society of Medicine* (February 3rd, 1911) Dr. J. Blumfeld describes a case of sudden collapse following the injection of 6 minims of a 1 in 4,000 solution of adrenalin in a patient anaesthetized with C.E. mixture. In this case, however, the patient recovered after the employment of remedial measures.

If an injection of adrenalin be made just before an anaesthetic is given, no bad results occur. It is difficult to understand the fact that when chloroform anaesthesia is deep the danger of injecting adrenalin is less than when light; unfortunately, in those operations in which adrenalin is most often used for haemostatic purposes—those about the nose and throat—it is a light anaesthesia that is desirable, and the anaesthetic chosen is usually chloroform.

# Memoranda:

## MEDICAL, SURGICAL, OBSTETRICAL.

### LONG INTERVAL BETWEEN BIRTH OF TWINS.

A SOMEWHAT unusual case of twins occurred in the practice of Dr. Macklin and myself, and seems of sufficient interest to record.

A multipara had a living male child on February 24th, the labour being quite straightforward. Another child could be felt with the vertex on the left and the child's back to the mother's left front. She had severe after-pains at half-hourly intervals for ten hours, and after that at longer intervals, until they ceased in twenty-four hours after the birth of the first child. The lochia was almost absent. She was allowed up at the end of a fortnight, and went about performing her household duties until April 4th, when labour pains came on again and she was delivered of a living female child. The first child weighed 6 lb. and the second 6½ lb., both being small but well nourished, and both are doing well now.

The point of interest is the long interval between the two births, nearly six weeks, and the fact that though the pains after the birth of the first child were strong and fairly frequent they failed to dislodge the second.

She has had four other children, single births, and one miscarriage.

Whalley. J. M. POSTLETHWAITE.

### STRANGULATED HERNIA IN AN INFANT.

THE cases recorded last November by Dr. Nichols and Mr. Dent induce me to record a case that occurred in my own practice some two years ago.

The patient was an infant aged 6 weeks at the Jenny Lind Children's Hospital, and I was summoned to it late one evening because the hernia—one of the strangulated inguinal variety—had resisted all attempts at reduction.

Chloroform having been administered, I found that the gut could not be reduced by gentle taxis, and as previous attempts had been made, I operated at once. On opening the sac, about a teaspoonful of turbid serum escaped. The bowel was intensely injected and of a purple colour. The neck of the sac being divided, the gut was easily reduced, and the opportunity was taken to do a radical cure, two buried sutures being used. The child made a good recovery.

I had never previously seen a case of strangulation in so young an infant. During nearly twenty years' work on the staff of the Children's Hospital here I had never seen a case of strangulated hernia in so young an infant, nor did I while house-surgeon at the Manchester Children's Hospital under Professor G. A. Wright. The latter in his book *Diseases of Children* (Ashby and Wright) does, however, mention cases as young as 3 weeks (Halsewood) and 4 weeks (Maunder), and Mr. Rushton Parker, in the BRITISH MEDICAL JOURNAL of October 26th, 1912, quoting from Mr. Howard Marsh's article, gives cases as young as 8 days and upwards to 13 years.

I note that Mr. Parker, in his case of an infant 28 days old, used the original strict Listerian dressing, which I also adopted in my case, deeming it safer, but have latterly regularly used the "open" method of Mr. Stiles—that is, no dressings. I have never punctured the scrotal swelling, as Mr. Parker did, although I have on several occasions thought of doing so, the swelling having eventually subsided.

HENRY C. NANCE, F.R.C.S.Eng.,
Consulting Surgeon, Jenny Lind Hospital for Sick Children.

Norwich.

### SUGGESTED OPERATION FOR RELIEF OF PROSTATIC HYPERTROPHY.

A CORRESPONDENT (p. 804) has raised a point which has interested me much during the last few years, although I have not had the opportunity to put it to a practical test.

In 1900 I devised and practised an operation for the cure of cystocele in the female, which is mentioned in Dr. Inglis Parsons's book on the treatment of *Uterine Prolapse* (page 52). I have since performed the operation in many cases, and always with success.

The results have been so good that I have often wished to put to the test the effect of a similar operation in an early case of enlargement of the prostate gland. The conditions are very similar, for how much of the abnormal growth of the prostate may be due to the infiltration of its substance from the decomposing urine in the residual sac which lies behind and below it? Could an arrest be effected by the obliteration of this sac and its load of bacteria?

The operation for cystocele in the female is simple and safe. The recti are divided in the middle line until the distended bladder is exposed, as in the suprapubic operation for calculus. The finger is then gently swept round the upper surface of the bladder, and detaches it from its abdominal relations until the upper surface of the distended bladder is freed. The contents of the bladder are then allowed to escape, and the loose upper part is drawn down and puckered with a stitch which is lightly tied, the ends being left long. Each long end is threaded in a needle, and is passed through its corresponding rectus as near as possible to its insertion on the pubis, and is then made to serve in closing the lower end of the divided muscles. Other stitches close the upper part of the muscle and the skin wound. For some days afterwards the urine is drawn off by the catheter every three hours. At the end of a fortnight it will be found that the residual urine is almost *nil*. I distend the bladder with a boric acid solution, and give an assistant the charge of the meatus urinarius, which he controls with his finger until he is told to release it, after the upper portion of the bladder has been freed from its former site.

It would be more easy to control the escape of the fluid used to distend the bladder in the male.

Guernsey. J. AIKMAN, M.D., C.M.Glasg.

### A BIMANUAL METHOD OF RECTIFYING A FACE PRESENTATION.

ON March 11th I was called to a woman in labour with her fourth child. Previous labours had been difficult, the pelvis being small and the children rather large.

The face was presenting, the chin being left anterior. The membranes were ruptured and the os uteri partly dilated, but though the face had just engaged the brim, the head was not coming down into the pelvis. It seemed quite obviously a case for podalic version as recommended by the books. As, however, the nearest help was five miles away and I did not at all relish the prospect of failing to deliver an after-coming head, I decided first to make what effort I could to turn the presentation into a vertex.

The patient being in the left lateral position across the bed, I inserted the left hand into the uterus, grasped the head, and rotated the chin well to the right so as to bring the occiput to the left, in order to enable me to make use of both hands to advantage. The left thumb was then pressed upwards on the chin, and with the fingers hooked over the occiput I tried to draw it down; the palm steadied the head, whilst with the right fist pressure was made downwards on the occiput through the abdominal wall. The manœuvre proved quite successful, adequate flexion being quickly secured. The occiput was then rotated back again and round to the front, the blades of the forceps were accurately adjusted to the sides of the head, and delivery was effected after much pulling.

I am quite satisfied that I should have found very much greater difficulty if I had performed version, and I shall not hesitate to use this method of rectification again if and when occasion serves.

Harston, Cambridge. W. J. YOUNG, M.R.C.S., L.R.C.P.

# Reports
ON
## MEDICAL AND SURGICAL PRACTICE IN HOSPITALS AND ASYLUMS.

### KIDDERMINSTER INFIRMARY AND CHILDREN'S HOSPITAL.

AN UNUSUAL CASE OF HENOCH'S PURPURA.

(Under the care of Mr. J. LIONEL STRETTON.)

[Reported by JAMES R. CRAIG, M.B., Ch.B., House-Surgeon.]

TAKEN in conjunction with recently reported cases of Henoch's purpura, the following presents some unusual features:

A woman, aged 39, was admitted on January 18th with the diagnosis of acute "gastric ulcer." She had been seized during the night previous with epigastric pain and had vomited blood. For three months prior to this attack she had been suffering from severe paroxysmal crises of pain in the back and abdomen. The remissions were fairly complete. She lost flesh, became short of breath and very anaemic, so that she was quite unable to carry on her household duties. She had never previously vomited blood, but stated that once or twice when the pain had been very severe she had strained very much at stool and the motion had been very black. There was a family history of tuberculosis. On admission, the patient was blanched and weak, complained of pain in the stomach and between the shoulders. There was general tenderness over the abdomen, but no definitely painful spot and no rigidity. The temperature was normal, pulse soft and 130. For the first two weeks after admission her condition somewhat improved, she took milk well, had little pain, and complained of nothing but extreme weakness. There was no more vomiting, no albumen or blood in the urine, and none in the stools.

On February 5th the right knee and ankle became painful and swollen, mostly from periarticular oedema. In a few days the other leg became similarly affected, and continued so for about a week. Then the pain left the lower limbs, and she began to suffer from intense crises of pain across the back and the lower part of the abdomen. The pains were most severe, and necessitated the use of morphine. The abdomen was very tender to pressure, but no blood was passed per rectum. The liver was enlarged, reaching to 1½ in. below the costal margin, and tender on palpation. The spleen was enlarged and tender. The urine occasionally showed a trace of albumen, but no blood nor tube-casts.

On February 25th, that is about three weeks after the onset of the joint pains, there appeared a purpuric rash, first on the lower limbs and later upon the sides of the chest and abdomen. The spots came out in scanty crops generally where the pain had been most intense, and were heralded by a sharp stinging sensation, like the sting of a nettle. They were mostly of small size, but several about as large as half a crown were noted on the hips.

The general condition of the patient became gradually worse, and in spite of taking food fairly well and actually gaining in weight, she became progressively more anaemic and enfeebled. Her pallor was intense and the mucous membranes blanched. She continued to have the crises of pain, sometimes across the epigastrium, sometimes across the lower part of the abdomen, and at other times in the legs. On March 25th, after being sick for a day or two, she vomited copiously of "coffee-ground vomit," and died a few hours later.

Unfortunately, a *post-mortem* examination was refused.

The main points of interest in this case are:

1. The age and sex of the patient. The large proportion of recorded cases have been in boys under 10 years of age, where the abdominal crises are so apt to simulate intussusception.

2. The long time before the purpura developed. It was just over five weeks after admission before the first crops appeared.

3. The attacks of haematemesis, leading to the diagnosis of gastric ulcer, and ultimately to a fatal issue.

4. The marked enlargement of liver and spleen.

I am indebted to Mr. J. Lionel Stretton for permission to publish this case.

# British Medical Association.

## CLINICAL AND SCIENTIFIC PROCEEDINGS.

### STAFFORDSHIRE BRANCH.

THE second general meeting of the session was held at Stafford on February 27th, under the chairmanship of Mr. E. C. STACK, F.R.C.S.I., President.

*Exhibition of Living Cases.*

Dr. COOKSON showed: (1) The patient upon whom he had operated for cancer of the sigmoid colon, referred to in his paper which followed. (2) A boy who, on October 26th, 1912, put his arm through a glass door. Later trophic ulcers and other typical symptoms of section of the ulnar nerve appeared. After an operation to freshen and unite the ends of the divided nerve the ulcers at once began rapidly to heal and sensation to return.

*Mouth Breathers and Deafness.*

Mr. PRIESTLEY discussed the question of mouth breathing and enlarged tonsils in relation to deafness, and illustrated his statements by reference to the data brought to light at school medical inspections. If the deaf cases among children generally were enumerated, it would, he said, be found year after year that they were about 6 per cent.; but if those children who breathe through the mouth were investigated it would be found that 38 or 40 per cent. of them were deaf. If, however, the children with enlarged tonsils were taken and all those rejected who, in addition to having large tonsils, breathed through the mouth, the proportion of deaf cases among the remainder was again only about 6 per cent., the same as that of children generally. This showed that enlarged tonsils as such did not entail any danger of deafness. Moreover, as many, if not most, cases of enlarged tonsils had adenoid growths in the naso-pharynx also, it might further be inferred that even adenoid growths at the back of the nose, unless large enough to cause mouth breathing, did not entail any particular danger of deafness. It was mouth breathing which entailed the danger. Mr. Priestley's paper was discussed by Mr. STACK, Mr. CHOLMELEY, Mr. DICKSON, and Drs. CODD and RIDLEY BAILEY; and Mr. PRIESTLEY replied.

*Specimens from Cases of Abdominal Section.*

Dr. NESFIELD COOKSON read a paper on three pathological specimens recently removed by abdominal section. The specimens, which were shown with microscopical sections of the two carcinomata, were:

1. A uterus much enlarged; the cavity was opened by a central incision through the anterior and posterior walls, showing a large single submucous myoma about the size of two closed fists; about half its circumference projected into the cavity of the uterus. This was removed on January 3rd, 1913, from a woman 42 years of age, married, with no children. Progress was uneventful; she got up on January 17th, and on February 16th resumed her ordinary housework, including looking after four boarders. Though not in attendance, he had been personally acquainted with the clinical history of the patient for some seventeen years. Always pale, she required little medical attendance till some eight years ago, when she was treated for menorrhagia. Since then her appearances for treatment had been at gradually diminishing intervals, always with similar symptoms—great loss and increasingly severe pain. Menstruation began at 13 years of age; it was always excessive but regular and without pain until eight years ago. Since then the intervals grew less till the flow recurred every fourteen days, and the pain was increasingly severe, lasting twenty-four or more hours and preventing sleep. When seen in December, 1912, she was very markedly anaemic, with fairly general oedema. The enlarged uterus was felt, and removal recommended. Dr. Cookson said that the specimen and the history indicated that this myoma was in process of being extruded; he had met with two cases in which this had occurred. The first, a single woman with a large knobbly uterus to be felt in the abdomen, had a large fibroid polypus in the vagina. She had had continuous haemorrhage for eighteen

months, and carcinoma had been diagnosed. When seen she was in a condition of general anasarca, absolutely blanched, and could not turn over in bed without severe dyspnœa. As she was obviously too ill to be given an anæsthetic the mass was seized with two vulsella and twisted round and round in the vagina till free; a mass the size of a large fetal head was then delivered with midwifery forceps. The patient made a good recovery, and was still well with the other fibroids still *in situ*. The other, a half-witted single woman, a servant in an out-of-the-way farmhouse, presented no symptoms until, because of offensive odour and the dropping of blood on the floor, medical aid was sought for. A large gangrenous fibroid was found hanging between the legs, showing incisions where attempts to remove it with scissors had been made by the patient. Simple removal was followed by recovery without symptoms of importance.

2. Uterus and appendages removed by Wertheim's method, showing a fungating epithelioma of the cervix extending on to the vaginal wall. This was removed on January 6th, 1913, from a woman 28 years of age. In July, 1912, she gave birth to her third child. The confinement was non-instrumental. She noticed a discharge a month after, which gradually became more profuse and offensive. When seen on December 7th, 1912, there was a large fungating mass; the uterus was small and freely movable; there was a very offensive discharge. A piece removed for section was reported to be a squamous-celled carcinoma. The growth was curetted and regular douching employed to try and clean the vagina, but the discharge was still offensive when the operation was performed. Suppuration followed the operation in the pelvis, and although the edges of the wound were protected by rubber sheeting after five days, the skin looking quite normal, because of discharge from one part, the wound was opened to its full length and the deeper parts found to have a peculiar greenish sloughy appearance. Beyond requiring regular catheterization for seven or eight days very little bladder trouble followed. With peroxide fomentations and douching all septic sequelæ cleared up, and she went home well on February 9th.

3. A portion of sigmoid flexure showing an annular carcinoma in the centre, with a colotomy opening in the part of bowel above the growth. The bowel was infiltrated by a malignant growth having the structure of a carcinoma, composed of irregular alveoli lined by cubical epithelium and infiltrating the muscle coats. This was removed on January 27th, 1913, from a woman 28 years of age. Dr. Cookson operated first on January 21st for intestinal obstruction. The woman was four months pregnant and complete obstruction had occurred for a week, though she passed flatus shortly before operation. A median incision was made, as the site of obstruction was not apparent, and a growth found in the centre of the sigmoid flexure, which had a long meso-sigmoid. The sigmoid, with the growth, was fixed at the upper end of the incision, outside the abdomen, opened, and a Paul's tube fixed in on January 23rd. The bowels were thoroughly cleared during the next few days, and on January 27th the wound opened up again and the sigmoid, with a V-shaped portion of meso-sigmoid, removed and end-to-end anastomosis done, using two continuous sutures, the first through the muscular and mucous coats, the second a continuous Lembert, and an interrupted Lembert outside. A drain was placed down to the bowel through a hole made in the side, and the median incision closed. She miscarried on the fifth day after, without pain; the placenta was removed manually; the bowels acted naturally the same day, and were thoroughly cleared with aperients on the ninth day. She never felt ill, and went home on February 19th feeling very well, the bowels acting regularly without aperients.

The main interest in these two cases was, Dr. Cookson said, the early age for the appearance of carcinoma and the question of prognosis. Dr. Cookson said he looked upon a fungating squamous carcinoma as a favourable form but had not met with one in so young a patient, nor had he seen a similar bowel growth to this at this age. A considerable portion of bowel having been removed, the permanency of the "cure" depended probably on the presence or absence of glandular infection, of which he did not see any signs. Dr. Cookson's paper was illustrated by sections shown under the microscope, and was discussed by Mr. Stack, and Drs. Elizabeth Moffett and Lowe. Dr. Cookson replied.

*Exhibition of Pathological Specimens.*

Mr. Cholmeley showed (1) a large stone from the bladder of a girl of 18, whose only complaint had been of profuse haematuria; (2) an aneurysmal varix of the internal saphenous vein of a man of 21—removed entire.

## HONG KONG AND CHINA BRANCH.

A meeting of the Hong Kong and China Branch was held on March 7th. Colonel J. M. Irwin, President, was in the chair, and twenty other members were present.

*Scarlet Fever.*—Dr. McKinney read notes of a case of scarlet fever, which had been under his care in the Tung Wah Hospital. The symptoms were typical, and albuminuria was present. The patient had resided in Hong Kong for the previous six months. Dr. McKinney referred to the rarity of scarlet fever in Hong Kong, and stated that the cases which had been reported had generally been imported. Dr. Clark asked the President if he had any knowledge of cases of scarlet fever in Tientsin and North China; there was a virulent form in Shanghai some years ago. Dr. Marriott asked if scarlet fever existed in the tropics otherwise than as imported cases. Colonel Irwin replied that he had not seen or heard of cases in Tientsin.

*Dry Gangrene.*—Dr. McKinney also related the case of a man, aged 55, admitted for enlargement of the liver and ascites who suddenly developed dry gangrene of fingers and toes. Fruitless inquiry was made as to what Chinese drugs he had taken.

*Typhoid Fever.*—Dr. McKinney discussed the types of typhoid fever met with in Hong Kong. The rash, he said, was frequently absent; the pulse was accelerated, but rarely dicrotic. The pyrexia was either typical or of "septic type," or after starting typically fell to normal in the first five or seven days. The stools were rarely typical.

*Fractures.*—Captain Hodge read a paper dealing with the older and more recent methods of treatment of fractures. He said that the modern method of operation and fixation by plates, etc., presented great risks, and was only satisfactory in the hands of a few experts, and frequently left depressed cicatrices or damaged soft parts. He dealt with the importance of properly padded splints to avoid pressure, and dwelt on the necessity of using anæsthetics in the reduction of difficult cases of fracture. Greater importance should be attached to the study of clinical symptoms rather than to *x*-ray photographs; a single such photograph was useless unless followed by a second in a different plane. He also instanced numerous cases in which there had been free movement for some time after the occurrence of fracture. Fleet Surgeon Stalkartt disagreed with the sweeping condemnation of operative treatment of fractures, and thought that many operations were most successful and necessary for a good result. Dr. Lobb disagreed with the arguments against operation; it was neither very difficult nor dangerous, even in compound fractures. He instanced many cases in which infection had been escaped, even in very dirty cases.

*Specimens.*—Captain Arthur demonstrated a specimen, sent by Dr. Gibson, of a case of sarcoma of the foot. Dr. Moore showed a seven months fetus from a case of ectopic gestation; the viscera were extruded from the abdominal cavity and there was apparently only one orifice for the bowel and genito-urinary purposes.

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On April 1st the House of Representatives of the Minnesota State Legislature passed, by a vote of 61 to 45, a bill providing for the sterilization of defectives, habitual criminals, and degenerates.

At the last meeting of the Royal Meteorological Society a report was presented on observations, chiefly made at the Meteorological Office, South Kensington, and Kew Observatory, which showed that the temperature fell nearly 3° during the solar eclipse of April 17th, 1912, the minimum occurring ten minutes after the maximum phase. At stations in the south of England the loss of recorded sunshine due to the eclipse varied from about twenty to twenty-five minutes.

# Reports of Societies.

## ROYAL SOCIETY OF MEDICINE.

### Section of Laryngology.

At a meeting on April 4th, Mr. Herbert Tilley, President, in the chair, the following were among the exhibits:—The President: A foreign body removed from the bronchus of a woman aged 42. It was a shawl pin, the point of which was directed towards the observer, and appeared only as a thread of mucus. Twice it slipped from the forceps, but was eventually drawn out with the bronchoscope. Morphine, atropin, and chloroform narcosis were employed, while the trachea and larynx were painted with 20 per cent. cocaine. Mr. G. N. Biggs: (1) An almost complete *Cast of the epithelial lining of the œsophagus.* It consisted of the epithelial lining and was vomited up three days after the patient had swallowed 1 oz. of chloroform. Rectal feeding was employed and bismuth lanolin and parolein given every four hours by the mouth. An œsophagoscopy three months later gave no indication of contraction. (2) A specimen of *Lympho-sarcoma* from the throat of a child aged 13. The glands of the neck and mediastinum were extensively involved. Dr. E. A. Peters: A case of *Cyst of the aryteno-epiglottidean fold*, which burst spontaneously with a rent in the upper surface. In such cases some of these cysts, he observed, disappeared rapidly on puncture, while others required removal of a considerable part of the wall. In this case the cyst appeared to be re-forming. The President said he had experienced redistension with some cysts and had found it necessary to remove a considerable part of the wall; he considered that a multilocular character explained this fact in some cases. Dr. Fitzgerald Powell recommended the opening of the cyst by the cautery and its subsequent application to the lining. Dr. William Hill advised puncture. Mr. E. B. Waggett would use suspension laryngoscopy and remove part of the cyst wall. Mr. G. W. Badgerow had noticed the frequent disappearance of these cysts on mere puncture. Dr. J. Donelan: A case of *Cyst on the epiglottis*, with symptoms suggestive of œsophageal stricture. The cyst was small and associated with a scarred condition, characteristic of healed syphilis or lupus. Dr. Fitzgerald Powell contended that the symptoms were due to a growth, and not to the small cyst. Dr. E. D. Davis exhibited a healthy looking man with *Tuberculous disease of the epiglottis* and tubercle bacilli in the sputum. It was found impossible to remove the whole of the disease with punch forceps, but with Killian's suspension laryngoscopy apparatus the epiglottis was readily trimmed with forceps and scissors. Mr. F. A. Muecke: A patient on whom *Tracheotomy* was performed six years ago for tertiary obstruction of the larynx, and who was still carrying a tracheotomy tube; there appeared to be a mass of granulations, though the patient could breathe through the larynx. Mr. Seccombe Hett exhibited a man who was able to speak after removal, two and a half years ago, of the whole of one cord and of the anterior part of the other for malignant disease. A discussion followed on the question of nasal feeding. Dr. William Hill was in favour of feeding *per os*. It was suggested that the nasal route was unsatisfactory when the nasal passages were either irritable or diminished by vasomotor rhinitis or other obstructions.

### Section of Otology.

At a meeting on April 18th, Dr. Dundas Grant, President, in the chair, Mr. Mark Hovell, in introducing a discussion on *Functional and simulated affections of the auditory apparatus*, objected to the term "functional deafness," because the function of the ear was to hear, and deafness was, therefore, a loss of function. Deafness was frequently simulated from various motives, and there were also cases of apparent suppression of hearing power as the result of a violent emotional influence. There were others in which deafness was simulated without an apparent object, or in which deafness was due to a temporary want of the necessary nerve power, the latter being found among persons who masturbated. In dealing with a case of deafness which was said to be simulated, care should be taken not to be prejudiced by statements made by persons associated with the patient; and where there was no apparent motive for loss of hearing, it was desirable to remove the patient from uncongenial surroundings. The object of the examination should be the discovery of diseased conditions if present. In many cases of simulated deafness the onset was sudden, the modulations of the voice remained unaltered, and there was an absence of the quick movement of the eyes exhibited by most deaf persons to obtain the knowledge which normally they would derive by the sense of hearing. No tests should be employed which could harm the patient, such as firing a pistol close to the ear. Where there was no apparent reason for the simulation, recovery was sometimes hastened by the medical attendant behaving as though he considered the case genuine. In some cases, while making an examination of the patient and conversing with the friends, a simple request to the patient to put out his tongue would sometimes lead to his doing so, he having been thrown off his guard. The President showed a case of apparently functional deafness in an unmarried woman, aged 29, who complained of deafness, which was worse on the left side, and which came on suddenly after a fit three and a half weeks before, probably vertiginous in character, though he considered it had a hysterical element. The tuning-fork test showed Rinne positive on both sides. After a somewhat exhaustive examination she seemed to hear better than at the beginning. The voice-raising test was only slightly positive. The patient suffered from a cardiac condition, and was nervously weak, and her syncopal attack had no doubt frightened her. Dr. Grant proceeded to detail tests by placing the tuning-fork on the vertex to detect malingerers simulating caisson disease when working at the Blackwall tunnel, some of whom had obtained generous compensation. Some forms of functional deafness he attributed to self-hypnosis, and such cases were often considered to have been cured by some unorthodox and fanciful form of treatment. Dr. W. Milligan (Manchester) pointed to the vestibular reactions as important tests of hearing power or its absence; in hysteria they differed from those found in organic disease. This matter had been worked out very thoroughly by Dr. Dan McKenzie, and the point was that the vestibular reactions and the vertiginous symptoms in hysteria were all "up and down," and there was lack of uniformity in result on testing at different times. Dr. H. Macnaughton-Jones said that in testing soldiers in the south of Ireland he had met with a certain amount of malingering. He objected to the term "hysterical deafness," and did not believe he had ever come across a case which could rightly be thus described. Dr. Dan McKenzie pointed out that a form of functional deafness occurred in old cases of organic deafness; the nerve centres, not being exposed to the usual stimuli, fell asleep, and this factor intensified the degree of deafness. Mr. Hugh Jones (Liverpool) said he had often thought there was a functional element in the chronic deafness of a degenerate child, perhaps a functional or epithelial change comparable with that in the crystalline lens.

## MEDICAL SOCIETY OF LONDON.

At a meeting on April 14th, Sir W. Watson Cheyne, President, in the chair, the following were among the exhibits: Dr. F. Parkes Weber: (1) *Primary tumour of bone* (? endothelioma). It was removed from a woman aged 54. The bones were very friable. The ribs could be broken like rotten twigs, and the laminae of the vertebrae cut through with scissors. The right lobe of the liver was also infiltrated with new growth. Mr. E. H. Shaw, in discussion, thought that the growth was primarily one of the liver, with secondary metastases in bones. (2) Large *Asymmetrical cervical ribs* in an old man without arm symptoms. The cervical ribs were jointed, the left one articulating with the first rib, that on the right probably with the second rib. Dr. J. L. Bunch: Two cases of *Hereditary Dupuytren's contracture*. The patients were father and son, and the condition was said to have affected the male members of the family for 300 years. Mr. E. H. Shaw: Two cases of *Carcinoma of the breast*: (1) A small irregular radiating growth with deeply retracted nipple, from a middle-aged woman. (2) An

ulcerating and fungating growth from a woman aged 50. Also *Carcinoma of the gall bladder, cystic ducts, and main bile ducts.* It was a columnar-celled growth, papillomatous for the most part, removed from a middle-aged woman. Also *Hydronephrosis* from a boy aged 6. It was produced by a sharp kink at the upper end of a very small ureter, probably congenital in origin. Dr. R. C. JEWESBURY: *Acromegaly* in a woman aged 36. The appearance was typical. The thyroid gland was definitely and uniformly enlarged; the *x* rays showed great expansion of the sella turcica. Also a case of *Pneumothorax* in a boy aged 5; it was of doubtful origin. The heart was displaced very much to the left, and *x* rays showed the whole of the thoracic spine bared from mediastinal structures. Mr. A. E. BARKER: *Remnant tumour of the umbilicus*, probably derived from the urachus or Vitelline duct. Mr. L. E. C. NORBURY: *Malformations.* The patient, aged 3 months, showed: (1) Accessory auricles; (2) macrostoma; (3) occlusion of the anterior fontanelle with excessive bone formation in this region; (4) deformity of the nose; (5) corneal opacity in the left eye.

## LIVERPOOL MEDICAL INSTITUTION.

AT a meeting on April 10th, Mr. ROBERT JONES, President, in the chair, Mr. R. W. MURRAY, speaking of undescended testicle, said that at least ten different methods of treating the condition had been described by various authorities; there was always much difficulty in keeping the organ in the scrotum. It was the practice now to open the canal and expose the testicle, hernial sac, and vas deferens at the level of the external ring; the sac was transfixed and cut across, but the lower part was left attached to the testicle. Then all the structures attaching the testicle were cut across between two ligatures, and the testicle and sac were placed in the scrotal bed. The immediate result was satisfactory, the testicle lived though its blood supply was cut off; it possibly supplied an internal secretion. Mr. F. T. PAUL said he had treated these cases by suturing the tissues in the canal across the cord to prevent it from being drawn up. He did not sacrifice the duct. Dr. SYDNEY WHITAKER showed a woman who had suffered from rheumatoid arthritis for fifteen years. All treatment proved useless except a fourteen-day fast, during which all pain left the joints. A coliform autogenous vaccine also produced slight benefit. As *x* rays showed intestinal stasis an ileo-colostomy was performed, with marked improvement in the joints and general condition. Dr. WALTER C. ORAM, in a paper on *X rays as therapeutic agents*, laid down three essentials: The rays must reach the tissue to be treated in sufficient quantity; they must be absorbed by the tissue; and the tissue must be susceptible to their action. The denser tissues of the body—the spleen, the thyroid, and the ovary—were far more susceptible to *x*-ray treatment than those of less density, such as the muscles, the kidney, and the brain. Even quite small variations in density caused considerable differences in the absorptive power for the rays. Tissues varied much in their susceptibility; thus *x*-ray exposures over the ovarian regions could bring about the suspension of activity of the ovaries, while the overlying skin, which had in the interval received a considerable dose, was not affected. Dr. F. H. BARENDT considered the *x* rays to be a valuable adjunct to treatment of skin diseases. In some cases of tuberculous disease good results were obtained, while in others the results were not satisfactory; the knowledge of the susceptibility of the tissues was wanting. Mr. THURSTAN HOLLAND thought the methods of measurement should be more accurate. In the treatment of malignant disease the method was of use if started early after a surgical removal; it then prevented recurrence, and secondary malignant nodules often disappeared. In menorrhagia the loss could be checked without risk. Pruritus was in many cases cured very rapidly. Dr. MACKENNA also spoke of the rapid action in cases of pruritus. He did not think the expectations with regard to malignant disease had been fulfilled. Sir JAMES BARR had used *x*-ray treatment in cases of leukaemia, and had had rapid and striking improvement. Unfortunately this had not been maintained, and when symptoms again appeared the *x* rays had no effect, and all his cases had died.

## HUNTERIAN SOCIETY.

AT a meeting on April 9th, Mr. A. H. TUBBY, President, in the chair, Dr. NATHAN RAW resumed a discussion on *Tuberculin treatment*, commenced at the meeting on March 26th. Dr. Raw's experience in 1,056 cases of various forms of tuberculosis had left on him a favourable impression. Undoubtedly localized forms of tuberculosis responded more readily to tuberculin than cases of pulmonary tuberculosis with a general systemic infection. He invariably treated his cases by cross-vaccination. Pulmonary tuberculosis, being most frequently an infection by human tubercle bacilli, was best treated by a tuberculin prepared from bovine bacilli, and the localized forms of tuberculosis, being very frequently infections by bovine bacilli, were best treated and gave better results by treatment with human tuberculin. With regard to dosage, he was firmly of the opinion that immunity should be established very slowly, and with only moderate doses of tuberculin. Tuberculin was a remedy of the greatest value, especially in early cases, and where the deposit of tubercle was localized, as in one apex or a lymph gland or single joint, but where the tuberculosis was disseminated and complicated by secondary infections the use of it could not be expected to be of much avail. It certainly limited the spread of the disease in the body. Tuberculin was not going to revolutionize the treatment of tuberculosis, but it was a valuable aid to the other methods of treatment. He agreed that bovine tuberculin gave the best results in pulmonary tuberculosis, and vice versa. He had treated lupus by tuberculin, and had found the results of diagnosis by von Pirquet's reaction pretty good in this disease. He had had good results of treatment in early cases of pulmonary disease. Dr. HINGSTON FOX had found the results of oral administration to be uncertain. He submitted that the inoculation test, on account of its risks, should be used only in exceptional and obscure cases. Dr. R. A. O'BRIEN pointed out that the outcome of a severe reaction was really to desensitize. There were three great problems facing the clinician. First, could one immunize against tuberculosis? The answer was in the negative. The second question, whether one could diagnose the existence of tuberculous disease by specific tuberculin tests alone, must also be answered in the negative, for in comparatively insensitive animals, such as the horse or man, a reaction only meant that the subject had, or had had, tuberculosis. Finally came the question whether one could prevent or foretell the existence of hypersensitiveness in a patient under treatment; this, again, he feared was impossible. Dr. BUTLER HARRIS discussed the treatment of tuberculous joints by tuberculin. He believed that in an early case, if the joint be put at rest, the tuberculin treatment helped. Dr. LATHAM agreed that the method of dispensary treatment with intensive doses was overdone, but he thought that every method should be tried adequately, so that under the sanatorium benefit sufficient data could be obtained for the purposes of comparison. He was not convinced by Dr. Raw that human tuberculin should be used for infections with the bovine bacillus, and vice versa. Neither could he share Dr. Raw's view that tuberculin often diminished the length of time during which treatment was necessary, although in a few cases that appeared to be merely holding their own and marking time it certainly gave the necessary stimulus. He would again emphasize the fact that it was of no value in cases where autoinoculation was frequent, irregular, and uncontrollable. Mr. FRANK CURRY gave a demonstration illustrating the preparation of the various tuberculins and their characteristics. The PRESIDENT, after thanking those who had taken part in the debate, spoke of cases of tuberculous spine treated by tuberculin, pointing out that he now knew that the reason why this treatment was unsuccessful was that these cases were purulent and caseous from the very first.

## MIDLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

AT a meeting at Birmingham on April 8th, Dr. MALINS, President, in the chair, Dr. PURSLOW showed a large *Cystic tumour of the kidney* removed by abdominal section from

a single woman aged 35, who presented a cystic swelling the size of a seven months gravid uterus. The tumour, which was lobulated, was freely movable, and extended across the middle line, and could be felt from the vagina and not from the loin; in fact, it showed all the characters of an ovarian cyst, and was diagnosed as such. As soon as the abdomen was opened the tumour was seen to be renal in origin; the outer layer of the ascending meso-colon was incised and the tumour removed, after tying off its attachments. The peritoneum of the meso-colon was closed with sutures and the abdominal wall closed without drainage. The patient made an uninterrupted recovery. Even after operation the most careful questioning failed to elicit anything in the previous history which would have given a clue to the condition. Dr. WALTER SWAYNE observed that he had had precisely a similar experience to that recorded by Dr. Purslow. In his case it was quite impossible to say before operation from which side of the abdomen the tumour had arisen. Even when the abdomen was opened the organ was only diagnosed as being kidney by reason of the loose peritoneum over it. Dr. T. CLARE recorded an instance of an enormously dilated kidney becoming manifest immediately after labour. In this case the condition had in no way interfered with pregnancy or labour. Dr. THOMAS WILSON remarked that two or three years ago he had diagnosed a tumour as an axial rotation of an ovarian cyst complicating pregnancy, but it proved to be a suppurating hydronephrosis which had become infected from the ascending colon. Dr. PARDHY thought that in these difficult cases the diagnosis frequently depended upon whether a general surgeon or gynaecologist saw the patient. He had seen more than one instance where a tumour was diagnosed by a general surgeon as a movable or cystic kidney, which proved at operation to be a cyst of ovarian origin. Dr. PURSLOW, in reply, mentioned two diagnostic points which had been cited as useful by a general surgeon, namely, if pain were produced upon pushing the tumour down into the pelvis it was likely to be of renal origin; if the tumour projected markedly forwards it was probably connected with the ovary. Dr. THOMAS WILSON showed the fetus and sac from a case of *Full-term intraligamentary gestation*. The patient had never shown any signs of pregnancy and was unaware of the nature of her condition. Menstruation had been quite regular throughout. The fetus had undergone "aseptic skeletonization." Dr. F. EDGE remarked on the extreme difficulty that might arise in the diagnosis of a fetus enclosed in a sac even after the abdomen had been opened. Dr. LEWIS GRAHAM said that in a case of full-term ectopic gestation under the care of Dr. Copeland Savage the uterine sound could be passed for 9½ in. In this case fetal movements were quite evident. Dr. WILLIAM SMITH showed: (1) A uterus, the seat of *Multiple fibromyomata complicating a two and a half months gestation*. The patient had had no pressure symptoms, and was in good health. Hysterectomy was performed instead of awaiting events, because of the extraordinarily rapid development of the mass whilst under observation. The growths were both interstitial and subperitoneal. The patient made a good recovery. (2) The right uterine appendages from a case of *Tubal abortion with extensive pelvic haematocele*. The course of the case and other phenomena had led to a diagnosis first of pyosalpinx secondary to early uterine abortion, and then of ectopic gestation. Laparotomy was performed, and the patient made a good recovery. Dr. T. CLARE having read a paper on the pathology and treatment of a case of *Dysmenorrhoea and sterility*, Dr. THOMAS WILSON recalled the fact that at the annual meeting of the British Medical Association in 1911 he had read a short paper upon small fibroids at the level of the os internum as a cause of dysmenorrhoea; probably the underlying factor was disturbance in the polarity of the uterus. Dr. WALTER SWAYNE said he had had a small experience in altering the position of the cervix as suggested by Dudley of Chicago, and had found that the operation relieved the sterility but not the dysmenorrhoea. Dr. K. M. PARDHY having shown some fibromyomata of the uterus from a patient who first recognized the tumour at the age of 20, Dr. PURSLOW said that 24 was the earliest age at which he had himself seen fibroids of the uterus develop.

# Reviews.

## SURGERY OF THE STOMACH.

Of all the modern exploits of surgery, perhaps there is no enterprise so attractive and fascinating as the bold invasion of the stomach region. The reasons are at least twofold. The manipulative dexterity demanded in the performance of all operations on the stomach and the mental exercise of planning the best procedure are a real intellectual delight to a skilful man, while the results frequently achieved are brilliant. Mr. HERBERT PATERSON has been prominent for some years as an authority on gastric surgery. His former works have won for him a well-merited place, and his most recent book, *The Surgery of the Stomach*,[1] establishes his position more soundly than ever. This work is concerned with the diagnosis and treatment of those affections of the stomach which are amenable to direct surgical interference. The advances in diagnosis of abdominal diseases have not kept pace with the researches in pathology and with the variety and boldness of operations. It would probably be well were test-meal investigations more freely undertaken by the family practitioner. Mr. Paterson thinks that the doctor would be amply repaid if he carried out ordinary qualitative tests and estimated the total acidity of the gastric contents even if he did nothing else. The cry of the operating surgeon in all cancers, and especially in stomach cancer, is for the cases to be sent early. The examination of test meals in every case of persistent dyspepsia which does not yield in a reasonable number of weeks to medical treatment would, Mr. Paterson urges, be the best means of making early diagnosis in gastric cancer. The chapters dealing with this department of stomach surgery are exceedingly thorough, and support admirably the author's earnest advocacy of the universal early adoption of methods of chemical investigation.

Gastro-jejunostomy is, of course, the favourite among the surgical operations on the stomach, and Mr. Paterson has much to say of it in all its phases, applications, results, and complications. We are interested and surprised to note that although the posterior operation is that usually performed, in his opinion "it is immaterial which method be adopted; either operation, in suitable cases, gives excellent results." The grounds upon which this opinion is founded might have been more fully stated, for we believe that owing to the appeal which the posterior operation makes to so many surgeons as anatomically sound, the performance of the anterior mode is exceptional. The technique described in the text is exceedingly clear and simple, and no small assistance is afforded by a very good series of photographs. We note that after the haemostatic suture encircling the stoma is completed, the edges of the gastric and jejunal mucosa are everted, and so are still visible; these edges are buried by the last suture, which is a single serous suture, and the anastomosis is complete. Many surgeons, we believe, hold that a stitch which inverts the edges of the two mucosae will be more secure. Such a stitch is adopted by the Mayos; it is a through-and-through stitch, which they call the "in and out and over"—that is, it passes from the serous side through the whole thickness of the bowel wall, emerges at a quarter of an inch distance parallel with the visceral incision, and then crosses over to repeat the manœuvre in the stomach wall, and so on. Mr. Paterson does not consider gastro-jejunostomy purely a drainage operation, but that it is physiological, in so far as its immediate consequence is diminution of hyperacidity with maintenance of motility. The discussion on jejunal and gastro-jejunal ulcers forms a very interesting chapter, as also does that on appendicular gastralgia, a subject which is already associated with Mr. Paterson's name.

This book is a most excellent and thorough and complete work, and Mr. Paterson deserves hearty congratulations on its production. It is a full statement of all the modern work, much of which has been done by the writer himself, and we feel assured that it will meet with a cordial reception from surgeons. We venture to suggest that the style

[1] *The Surgery of the Stomach: A Handbook of Diagnosis and Treatment.* By Herbert J. Paterson, M.A., M.C., M.B.Cantab., F.R.C.S.Eng. London: James Nisbet and Co., Limited. 1913. (Med. 8vo, pp. 326; figs. 74. 12s. 6d. net.)

of writing might well be more impersonal in some parts, and we think, too, that it is hardly fair to gird at some old-fashioned methods as "superstitions," for after all, these "superstitions" were stages in the journey towards the goal to which we all are striving.

## TREATMENT OF SKIN DISEASES.

Dr. BULKLEY has long been known as the apostle of the simple life in the treatment of skin disease, and he is particularly zealous in his advocacy of a vegetarian diet in psoriasis. He has embodied his ideas on these subjects in a series of lectures on *Diet and Hygiene in Diseases of the Skin*.[2] These were originally delivered as clinical lectures at the New York Skin and Cancer Hospital, and make very interesting reading, and although one may not be able to follow the author to the end of the path which he has elected to travel, deference must undoubtedly be paid to a physician of such great experience. The French and American dermatologists are inclined to lay more stress than their British brethren on the internal medication and the dietetics of skin disease, and it is possible that they underrate the powers of local treatment, aided only by the avoidance of obvious excesses in food and drink. The contrast between the two schools is especially brought out in the way in which they regard psoriasis and infantile eczema. In the former case few British writers do more than inculcate abstinence from alcohol, while in the latter it is customary merely to see that digestion is properly carried out. Dr. Bulkley, on the other hand, always finds in patients suffering from psoriasis, by means of minute volumetric analyses of the urine (of which, however, no details are given in the present volume), evidences of disordered metabolism, and he is very careful in prescribing an exact diet for the eczematous infant, usually including a special "wheat-jelly" of his own invention. Dr. Bulkley also claims excellent results with his system of giving in acute dermatoses a diet consisting only of boiled rice, white bread, and water for several days. He is fortified in his opinion by the fact that he himself is liable to attacks of acute erythema, accompanied by bullae, which he was unable easily to control until he adopted this system. Those who wish to make trial of Dr. Bulkley's methods—and they are undoubtedly worthy of consideration in many instances, if not in all those in which the author advocates them—will find the appendix very useful. Here are given numerous vegetarian dietaries, with indications for their employment, and in some cases directions for the preparation of the dishes recommended. Some, however, of the articles mentioned are peculiar to America. For these the English physician must find appropriate substitutes.

We have also received a copy of Dr. BULKLEY'S *Compendium of Diseases of the Skin*,[3] which is really the fifth edition of his manual of skin diseases. The number of editions is sufficient testimony of the success of the book. It is essentially based upon lectures delivered by the author, and, although the whole art of dermatology is compressed into fewer than 300 pages, it makes quite good reading. Very wisely most of the space is occupied with the consideration of the commoner diseases and their treatment. Here the author again lays great stress upon the importance of dietary measures. There is also a very good therapeutic formulary included. Almost alone among books upon skin disease, it has no illustrations.

## HOSPITAL REPORTS.

### *St. Bartholomew's Hospital.*

THE steady increase in the development of scientific medicine and surgery is well exemplified in this forty-eighth volume of the *St. Bartholomew's Hospital Reports*,[4] if compared with the earlier volumes of the archives of that venerable institution. In the medical series of contributions is one by Dr. Woodwark on the line of treatment in mental and physical deficiency, based upon the therapeutic action of the internal secretions; in it there is mention of the pituitary gland, till lately held to be insignificant, yet of recent years wonderfully prominent in works on physiology, therapeutics, and scientific anatomy. We all know its relations to gigantism, ably demonstrated by Professor Arthur Keith in respect to O'Brian and other interesting but pathological sons of Anak. A distinct sign of the times in the volume under review is the truly scientific consideration given to venereal disease, till lately associated with empiricism and rule-of-thumb clinical and therapeutical routine work. For not only does Dr. A. W. D. Coventon contribute a paper on syphilis and parasyphilis of the nervous system in childhood, in which we hear much of the now familiar Wassermann's reaction, but there is also a highly interesting analysis of 131 cases of blood infection in gonorrhoea and an inquiry into the value of vaccines in their treatment by Mr. R. Foster Moore. The summaries of Dr. Coventon's and Mr. Moore's articles are in themselves worth study, the more so as the text is devoted to matter which only those who are more or less experts can judge correctly. As the result of scientific clinical investigation Dr. Coventon expresses the opinion that syphilitic and parasyphilitic disease of the nervous system is not very rare in childhood, and is liable to be overlooked; but the tests now at our disposal show that certain well-known nerve symptoms by no means prove that the child's malady is due to syphilis. Mr. Moore dwells on gonorrhoeal arthritis and iritis. Turning to the surgical department, Mr. Noon and Mr. Moreton's critical examination of six complete cases of acute pneumococcal peritonitis is a short but good and well tabulated article. The results of operative and expectant treatment shown in the tables will interest the surgeon. All the patients were female children except one, a man aged 57. Mr. Noon adds a further series of cases of general peritonitis of appendicular origin, with notes on the after-treatment, and in association with this contribution, Mr. Vick's investigation of 100 cases of appendicitis may be mentioned. Both Mr. Noon and Mr. Vick supply us with instructive tables. This volume of the *Reports* is decidedly superior in quality to quantity. For its original article department is limited to 166 pages, twenty less than those allowed to the "statistical tables," whilst the museum report takes up forty pages. Of the other original contributions, not mentioned above, there is a paper on the age incidence of intracerebral haemorrhage by Dr. Andrewes, a case of intermittent glycosuria by Mr. Mackenzie Wallis and Dr. F. A. Roper, and a good surgical report by Mr. Gask on a case of thrombosis of the axillary artery, in which an operation was undertaken for the removal of the clot and suture of the vessel; the author gives abstracts of 9 cases already published. Mr. E. Anslie contributes a paper on the diagnosis of endosteal tumour, Mr. Harold Wilson one on 2 cases of muscular paresis of the bladder, and Mr. C. D. Kerr an account of a case of lateral sinus thrombosis followed by hernia of the cerebellum in which recovery ensued. The reports are headed by a graceful obituary notice of Sir Henry Butlin with a portrait.

### *Guy's Hospital.*

Dr. Spriggs contributes to the new volume of the *Guy's Hospital Reports*[5] a very substantial paper on congenital intestinal occlusion. He had two cases under his own observation a few years ago, and has studied numerous museum preparations. The table of references is most copious, old writers as well as current authorities being freely quoted. Congenital occlusion, it is shown, is generally single, and most often occurs in the lower ileum. The next most frequent site is in the duodenum near the biliary papilla. When occlusions are multiple they are usually situated in the jejuno-ileum. Such cases are very unfavourable for treatment, but early abdominal section, followed by dilatation of the contracted gut by water pressure and lateral anastomosis, may save the patient. Mr. Alan Todd, in a paper on the results of operation for glaucoma, gives an instructive account of the examination of nearly

[2] *Diet and Hygiene in Diseases of the Skin.* By L. Duncan Bulkley, A.M., M.D. New York: Paul B. Hoeber. 1913. (Med. 8vo, pp. 207. 2 dols.)

[3] *Compendium of Diseases of the Skin.* By L. Duncan Bulkley, A.M., M.D. New York: Paul Hoeber. 1913. (Med. 8vo, pp. 296. 2 dols.)

[4] *St. Bartholomew's Hospital Reports.* Edited by H. M. Fletcher, M.D., and W. McAdam Eccles, M.S., F.R.C.S. Vol. xlviii. London: Smith, Elder and Co. 1913. (Med. 8vo, pp. 216; illustrations 6.)

[5] *Guy's Hospital Reports.* Edited by F. J. Steward, M.S., and Herbert French, M.D. Vol. lxvi, being the fifty-first of the Third Series. London: J. and A. Churchill. 1912. (Med. 8vo, pp. 451.)

80 cases. Dr. Frederick Taylor's cases of poisoning by opium will interest the toxicologist and physician, especially those who have studied his writings on the faradic current as a therapeutic agent. The volume contains reports from the throat and aural department, and also a remarkable note, illustrated by a photograph and a drawing, on carcinoma of the left kidney, in which a continuous clot extended from the kidney along the left renal vein and up the inferior vena cava into the right auricle, producing an intercardiac polypoid mass, which led to tricuspid stenosis of the ball-and-socket type; the clot was infiltrated with carcinoma of the same type as that in the kidney itself. This communication is written by Dr. Herbert French, who also reports a case of adrenal hypernephroma in a girl 6 years of age. Signs of precocious puberty, as in cases previously recorded, were irregularly developed; pubic hair had been noted when the child was 8 months old, but there was no abnormal hair in the axillae or on the face. The clitoris had been hypertrophied since infancy. Dr. Arthur Hertz, who edits a series of "Neurological Studies," writes notes on cases of hereditary intention tremor, epilepsy with remarkable aura, and lead neuritis involving the circumflex nerves, and, in conjunction with Dr. W. Johnson, an analysis of fifty cases of disseminated sclerosis; Dr. Johnson himself contributes as a separate paper some observations on the influence of congenital syphilis on mental deficiency in children; and Mr. J. L. M. Symns a paper on the vibratory sense in peripheral neuritis. As there are altogether twenty-three original articles in this volume of the *Reports*, want of space precludes notice of all of them. The first paper is a good obituary notice of Dr. Pavy, written by Dr. Frederick Taylor.

## HEPATIC DISEASE.

ALTHOUGH not so designated on the title page, Dr. ROLLESTON'S book on *Diseases of the Liver, Gall Bladder, and Bile Ducts*[6] is really a second edition of his work of the same name published in 1905 and noticed by us in that year (see BRITISH MEDICAL JOURNAL, April 15th, 1905, p. 827), and the author indeed prints a "preface to the second edition." In our former notice we wrote "this is the most considerable work on diseases of the liver which has appeared since the classical treatise of Murchison. It fully deserves to take a high place among modern text-books, and we heartily congratulate Dr. Rolleston on his success." There is, therefore, no need for us to add anything beyond an endorsement of the author's claim to have thoroughly revised his work, added much new matter, made many alterations, and carried out condensation so far as compatible with a full consideration of the subject. The present volume contains a few more pages than the earlier, but owing to the use of a lighter paper is not so heavy to hold in the hand.

## DEGREES FOR LONDON STUDENTS.

DR. ELLIOT-BLAKE, who has already challenged opinion as an advocate of certain changes in the Royal Colleges of Physicians and Surgeons in London, has recently issued another volume on the same subject, with additional matter of more general appeal.[7] In the first place, he urges those responsible for the governance of the Royal Colleges to take steps, either by agreement with the university authorities, or, failing that, by an Act of Parliament, to convert their licences to degrees. And, as a natural consequence of this line of action, he desires the present courses of study for diplomates to be conformed to the university type. In order that present holders of the conjoint diplomas may not suffer by the change, he further advocates the granting to them of retrospective degrees, perhaps after the reading of a thesis. On behalf of these changes he argues that the present system, with its multiplication of medical class distinctions, is confusing to the public, unjust to a deserving body of practitioners, and provocative of bad blood. He claims that "every public report and medical leader who has examined the subject has declared that no practical difference exists between the pass diploma licence and a pass degree." And, in support of this contention, he calculates that candidates holding the London diplomas obtained in eighteen competitive examinations 69.1 per cent. of successes, as compared with 48.5 obtained by graduates of Scottish and Irish universities. The Senate of the University was, he states, enjoined by the Act of 1898 to ratify extensions of higher education, and to organize them within the London radius, while the Royal Colleges were singled out by specific reference as worthy of incorporation. He therefore considers that the representatives of the Colleges upon the Senate of the University have been remiss in failing to press for the reforms which he advocates. To the passive resistance of the Senate he attributes the failure of the collegiate representatives to avail themselves of Section 123 of the Statutes, which in his opinion entitle the Colleges to examine for degrees and to claim university ratification. The inclusion of a Royal Colleges Board in the University Faculty of Medicine in London would, he argues, be in accordance with traditional usage as exemplified in the development of other universities, for example, those of Paris and Bologna. He appeals for the financial aid of wealthy philanthropists, failing which, he is of opinion that some part of the huge sums at present devoted to the primary education of the masses would be more usefully employed in the endowment of a reformed system of medical teaching. For, as he justly pleads, the standard of efficiency demanded of the modern practitioner is constantly rising, and can only be generally attained by a method of teaching which is based upon a cultural rather than a merely utilitarian ideal. He considers the suggested "one portal" system objectionable in several ways. For one thing, it is based upon French and German models, and inapplicable, he thinks, to the English educational situation. In the second place, it would have the result of bolstering up "the bad old licensing system." And, thirdly, he objects, it would involve the addition of one more burden to the present examination incubus. For these and other reasons, into which space does not permit us to enter—all picturesquely phrased and forcibly expounded—Dr. Elliot-Blake maintains that it was incumbent upon the Royal Colleges to prepare and submit to the Royal Commissioners a definite scheme claiming on behalf of their students participation in the privileges of the University on condition of their passing a suitable arts examination and undergoing a curriculum modified in the direction of the university system. In an appendix dealing with the earlier reports of the Royal Commission on University Education in London, Dr. Elliot-Blake strongly supports the recommendation of Sir William Ramsay that the teachers' records of work done *in statu pupillari* should be taken account of in the granting or withholding of degrees. As his book was published before the final report of the Commission was issued, he was unable to note its recommendations on this and other subjects.

The second part of the book opens with a musical setting of Raleigh's reform song, "The Soule's Arrant," which we must resign to more competent criticism. Then follows an anthology of "reformed adages" and miscellaneous aphorisms, as to which we own to some apprehension that the bulk of them will prove caviare to the general. But they reveal a mind whose originality goes to atone for harshness and obscurity of expression.

## NOTES ON BOOKS.

*Every Man His Own Builder*[8] is a most practical book addressed by a professional man to an amateur. It is not often that in a well settled country it can be worth a man's while to give his own time and labour to the actual work of building his own dwelling house; but Mr. G. GORDON SAMSON has an eye also for countries in the process of being opened up, and is at pains to discuss colonial conditions and to suggest means of meeting difficulties due to want of skilled labour and distance from sources of supply. But even in this country the information the book contains will be useful to most dwellers in rural districts, who, if they have not to build houses to

[6] *Diseases of the Liver, Gall Bladder, and Bile Ducts.* By Humphry Davy Rolleston, M.A., M.D.Cantab., F.R.C.P. London: Macmillan and Co., Ltd. 1912. (Roy. 8vo, pp. 826, figs. 108, plates 7. 25s. net.)

[7] *University Reform for the Royal Medical Colleges, and Reformed Adages.* By H. Elliot-Blake, M.R.C.S., L.R.C.P., etc. Free Path Series. Vol. ii. London: John Bale, Sons, and Danielsson, Ltd. (Fcap. 4to, pp. 198. 11s. net.)

[8] *Every Man His Own Builder.* By G. Gordon Samson, Architect. A book for every one who owns a piece of land. London: Crosby, Lockwood and Son. 1913. (Demy 8vo, pp. 360. 5s. net.)

dwell in, are constantly having to meet interminable demands for repairs and often wish to erect outhouses. There are a good many books which give plans and suggestions for plans, but Mr. Gordon Samson is concerned rather with the details of construction: how to lay out foundations, to make and lay concrete, to make mortar, to choose timber and adjust it, to build a wall, to make a ceiling, to lay a floor, to build flues, to fix grates, and so on to all the hundred and one details which have to be met in even quite small building operations. He even tells his reader how to make and burn bricks, and also how to thatch—a most difficult operation requiring much skill and practice. To the city householder also the book will be useful, for it will help him to understand the true significance of the mysterious terms in the builder's estimate for repairs. There is a glossary constructed on the simple principle of quoting the page on which the meaning of the technical term is explained; it might have been made much fuller with advantage. The volume has an index also and is very fully illustrated by diagrams and drawings of details. It has a plan for a small farmhouse and outhouses, and a chapter on drawing a plan and elevation.

A special feature of the *City of London Year Book*[9] is that, appearing as it does in the fourth month of each year, it contains information not to be found in any of its compeers. Thus in the edition for the present year, we find a list of members of the London County Council after its reconstitution at the recent election. Equally up to date is the information as to the membership of other large bodies closely connected with work in London, such as the committees of the Corporation of the City, Lloyds, and the Stock Exchange. Not less useful at times is the accurate information supplied as to miscellaneous points, such as the history of the City Guilds and the schools and charities supported by them.

The Far Eastern Association of Tropical Medicine appears to have obtained a very good grip on qualified medical men of all nationalities in Eastern Asia and its surroundings, and the second congress at Hong Kong in January, 1912, was very well attended. The papers then read and reports of the discussions on them have been brought together by Dr. Francis Clark, the general secretary of the association, and form a volume[10] which is especially strong on the subject of beri-beri and of general interest to all those at work in tropical areas. As already announced, the next congress will take place at Saigon on the invitation of the Government of French Indo-China.

Some of the wild blood of his Viking forbears must still flow in the veins of Dr. Sven Hedin, for the account of his wanderings *From Pole to Pole*,[11] of which an abridged translation has recently been published for the use of English-speaking children, is full of adventures such as would have delighted the hearts of those early explorers. Dr. Hedin has penetrated into places where a white man had never before set foot; and his story is a record of perilous journeys and hairbreadth escapes, which he relates with as little emotion as though he were describing a trip to Paris and back. The great Swedish explorer writes very modestly of those feats of daring that have made his name famous far beyond the confines of his own country. His chief aim seems to have been to describe what he has seen in the course of his travels rather than what he has endured; and his book is therefore more a vivid panoramic view of the different countries of the world than a record of his own personal experiences. The latter, needless to say, form the most interesting portion of a book in which there is not a single dull page. Dr. Hedin possesses a keen sense of humour and a wide sympathy with all sorts and conditions of men; and the child must be hard indeed to please who is not thrilled and fascinated by this simple manly narrative of one of the greatest of modern explorers. The interest of the book is increased by the numerous photographs and maps with which it is illustrated.

In *Poems of Filey and Other Verses*[12] the author shows us a mind in harmony with nature, keenly sensitive to all her moods—bright, or sombre, or mysterious. He has, for example, felt the sense of other-worldliness which may come over the wayfarer on a moor when a sea mist sweeps up to him and seems to wrap him away from his fellow men and all the worries and struggles of workaday life. Filey possesses a charm not quite easy to define; it resides, no doubt, primarily in the unsurpassed variety of the coast scenery and the ever-changing sea which beats about the Brigg even on the calmest day, but in it the well-marked characteristics of the race of fishermen, who combine daring with prudence, and shrewdness with simplicity to no common degree, have a share. To both influences "Carr Point"—a pen name which veils the identity of Dr. Herbert J. Robson of Leeds—gives graceful expression.

[9] *The City of London Year Book and Civic Directory, 1913.* London: W. H. and L. Collingridge, City Press. (Sup. roy. 8vo, pp. 382. 5s. net.)

[10] *The Transactions of the Second Biennial Congress of the Far Eastern Association of Tropical Medicine.* Edited by Francis Clark, M.D., M.R.C.P., D.P.H. Hong Kong: Noranka and Co. 1912. (Roy. 8vo, pp. 420. 10s. 6d.)

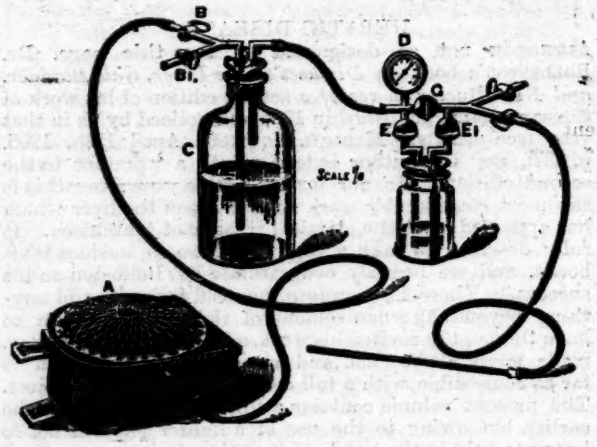
[11] *From Pole to Pole.* A Book for Young People. By Sven Hedin. London: Macmillan and Co., Limited. 1912. (Post 8vo, pp. 420; 26 illustrations. 7s. 6d. net.)

[12] *Poems of Filey and Other Verses.* By "Carr Point." London: Simpkin, Marshall, and Co. 1912. (Fcap. 8vo, pp. 110.)

## MEDICAL AND SURGICAL APPLIANCES.

*Intratracheal Insufflation of Ether.*

Mr. Edmund Boyle (Assistant Anaesthetist, St. Bartholomew's Hospital) writes: The accompanying illustration shows an apparatus that has been devised by Mr. G. E. Gask and myself for the intratracheal insufflation of ether. Air is driven from the bellows A through hot water in the bottle C (the tap B is for air, and $B_1$ is a reserve tap for oxygen if necessary). The air then passes through E over the surface of the ether in the smaller bottle, and so on to the gum-elastic catheter F. When it is desirable to give air without ether E $E_1$ are turned off and G is turned on. By regulating these taps it is quite easy to have either the whole or part of the air laden with ether vapour. The manometer D registers the pressure under which the air is driven into the trachea. The apparatus and the method of maintaining anaesthesia are mainly intended for intrathoracic operations, which in




the past were only possible with the aid of negative pressure cabinets. But now, thanks to the work of Meltzer, Auer, and Elsberg, these intrathoracic operations can be performed and anaesthesia maintained with safety by means of the intratracheal insufflation of ether. The method of administration is as follows: The patient is first anaesthetized, and then the catheter is passed through the vocal cords down to the bifurcation of the trachea. Air laden with ether vapour is then pumped in at varying pressures according to the necessities of the case. By this means it is possible to produce an excellent type of anaesthesia which has the great advantage of being quite safe, since by pumping in pure air we can easily and rapidly restore the patient to consciousness. Indeed it is held that when once the catheter is in position we have a perfect form of artificial respiration, for we are able to aërate the lungs at will. Although this method is mainly intended for use in intrathoracic operations where it may be necessary to allow the lungs to collapse during the operation, and then subsequently, at the end of the operation, to reinflate them when the pleura is being sewn up, I think that the method is quite likely to be of great service for the removal of goitres. My experience in this type of case is at present limited, but yet sufficient to lead me to think that the method is well worth an extensive trial. The apparatus can be obtained from Messrs. Mayer and Meltzer.

The twenty-third Congress of Alienists and Neurologists of France and French-speaking countries will be held at Le Puy in August (1st to 6th).

## THE CORONERS ACT AND THE NEED FOR ITS AMENDMENT.

As the law relating to coroners and coroners' inquests at present stands, many difficult questions present themselves for consideration—questions which directly affect the public welfare on the one hand, and which have also a bearing upon the good name, and to a lesser degree upon the material interests, of the medical profession upon the other. The general question has been considered both by a Select Committee of the House of Commons and also by a Departmental Committee. Both issued reports full of valuable recommendations, but, as is so often the case, these reports have so far been fruitless, and the question seems to have fallen completely into abeyance. It may therefore be of interest to review the position as it is at present with especial reference to some of the more important points involved. The British Medical Association has for a very long time realized the need for amendment of the law in this matter, and has devoted great consideration to the question, and as long ago as 1905 was prepared with a bill to amend the law relating to coroners, but owing to changes of Government, busy sessions, and the usual causes that so often prevail in such matters, it disappeared. The Association was very active in the matter in 1908, and a Departmental Committee was appointed by the Home Office to inquire into the whole question of coroners and their practice, an additional reference being made to the Committee as to deaths under anaesthetics, and the dangers arising from the use of flannelette. The Association was prepared to offer evidence to the Committee, and presented a carefully considered memorandum of its views and suggestions, receiving a promise from the Committee that the memorandum should be circulated to all its members, and that it should be printed as an appendix to the report when it was issued, but, owing to the sudden closing of the taking of evidence, the witnesses for the Association were not heard. The most important point advocated by the Association was the need for amendment of the present system of death certification and registration. As the law at present stands, a registrar can register a death only on receipt of certain kinds of information: (*a*) If a registered medical practitioner has been in attendance upon the deceased, upon the statement of a qualified informant (in accordance with Sections 10 and 11 of the Act), accompanied by a certificate from such practitioner; (*b*) if no registered practitioner has been in attendance, upon the statement of the qualified informant only; (*c*) on the certificate of a coroner that after inquiry he does not consider an inquest necessary; (*d*) if an inquest has been held, upon a certificate of the finding of a coroner's jury.

As the law at present stands, a medical practitioner who has been in attendance is required (under-penalty) to give (without fee) a certificate as to the cause of death "to the best of his knowledge and ability." Forms for the purpose are issued by the Registrar-General, but there is no statutory or legal obligation upon the practitioner to give all the particulars indicated upon the form, or even to use the form at all. Under the Regulations, the registrar is directed in every case of violent or sudden death, or where the cause of death is suspicious or unknown, to report the same to the coroner before registering it, in order that the coroner may decide as to the necessity for an inquest. The coroner has, of course, other sources of information, such as the police, but, as was pointed out as long ago as 1893, the only official responsible for deciding whether or not there is a suspicious element in a case is the registrar, for the only statutory obligation upon the medical practitioner in this matter is that if he has been in attendance he shall give a certificate as to the cause of death to the best of his knowledge and belief. He is under no statutory obligation to use the form of certificate supplied and is not obliged to certify as to the fact of death, and the words "as I am informed" in the form safeguard the practitioner from being required to certify that the person in question is in fact dead, rendering it thus possible that the person whom he attended and to whom the certificate purports to relate may not be dead—this state of the law facilitates the substitution of one body for another.

The Select Committee in 1893 made a very strong pronouncement concerning deaths registered upon the information of a "qualified informant" (or, in other words, cases in which no medical practitioner has been in attendance), as the following extracts from the report show:

> The Registrar in such cases is instructed by the Regulations to register the death and to give the best information regarding its cause that he is able to obtain from the informant. He may, therefore, legally take information on this point from a person who has no real knowledge of the matter. He cannot, however, refuse to register the death, and it is no part of his duty to make any personal investigation of the facts of the case, and unless a case be reported to the coroner there is no authority for delaying registration in order that inquiries may be made. . . . There can be little doubt that much of the information obtained in these cases is far from trustworthy. In other cases, however, it is to be feared that the information given to the Registrar is not only untrue, but known to be so by the informant. There appears to be nothing in the existing procedure to prevent a fictitious cause of death being assigned in the case of a person got rid of by foul play, and for a certificate to be issued upon registration of such information. In short, the existing procedure plays into the hands of the criminal classes. It cannot be legitimately expected that a Registrar of Births and Deaths, whatever his education and intelligence may be, should be able to form a satisfactory opinion as to the trustworthiness of the information tendered to him by the informant of a death, and your Committee is convinced that a system which permits registration to take place upon information so obtained, cannot be other than dangerously defective. . . . Your Committee is much impressed with the serious possibilities implied in a system which permits death and burial to take place without the production of satisfactory medical evidence of the cause of death. . . . Your Committee, fortified with the weighty opinions of the witnesses who have appeared before them, has arrived at the conclusion that uncertified deaths should as a class cease to exist, and that means should be devised whereby a medical certificate should be obtained in every case not certified by a registered practitioner in attendance.

This impressive statement was made twenty years ago, and no advance has yet been made. The British Medical Association drafted a comprehensive bill, printed in 1904, designed to overcome the various weaknesses and anomalies of the existing law; the main points regarding this particular matter were as follows:

1. Every death, if possible, to be certified by a registered practitioner who has been in attendance.
2. The body to be viewed after death by a registered practitioner prior to certification. The certificate to be a confidential document subject to the discretion of the Registrar-General.
3. All deaths not certified by a registered practitioner to be referred to the coroner, or, in the case of Scotland, the Procurator-Fiscal.
4. That a special medical officer be appointed in every coroner's district to visit and examine the body and report to the coroner in all cases of death where no registered practitioner is able to give a certificate, such medical officer to be associated in his investigation with the usual medical attendant of the deceased, or any registered practitioner who may have been called in.

These various points were all included in the memorandum placed by the Association before the Departmental Committee in 1908, and it is interesting to note the report of the Committee, which takes the same serious view of this question as did the Select Committee of 1893. The report states:

> The general question of the certification of death is outside the scope of our inquiry, but we would venture earnestly to call attention to the report of the Select Committee of 1893, to the representations made by the London County Council, and to the evidence given by the Registrar-General. . . . It is no fault of the law if premature burial does not take place. The present law of death certification offers every opportunity for premature burial and every facility for the concealment of crime.

Although the Committee considered this question outside the scope of its reference it did not hesitate to express the above emphatic opinion, and what is more, to make two most important recommendations upon the matter—namely, that no certificate should be accepted from a practitioner unless it states that he has by personal inspection satisfied himself as to the fact of death, and that in every case in which no such certificate is forthcoming it should be made a statutory duty for the registrar to report the death to the coroner, who would then exercise his discretion, and, if the amendment of the law suggested by the Association were adopted, would be fortified in the exercise of that discretion by the skilled medical advice of competent persons appointed for his assistance.

The existing law makes cremation difficult in the case

of bodies brought from abroad, as at present no body so brought can be cremated unless the coroner considers himself justified in holding an inquest and giving a certificate in the prescribed form. Cremation is becoming more and more common; it is a practice much to be commended, and under proper safeguards no unnecessary obstacles should be placed in its way.

With regard to the fees payable to medical men several questions arise. One that is very constantly cropping up has reference to inquests held upon persons dying in public institutions; the medical officers of such institutions are not entitled to receive any fees from the coroner either for giving evidence at the inquest or for making a *post-mortem* examination when directed to do so. The legal anomaly which compels the coroner to withhold fees from those engaged in such work must continue until the law is altered, for Section 22 of the Coroners Act of 1887, which deals with the fees payable to medical men, especially excludes from participation in the fees enumerated the medical officers of public institutions, and proceeds at some length to specify such institutions. It is difficult to imagine the reasons that could have induced the Legislature to impose such a restriction, as the net result is that a penalty is imposed upon a very hard worked and by no means highly paid section of the medical profession, without any advantage accruing either to the public welfare or to the particular institution concerned. It seems difficult logically to justify the practice of paying fees to the medical officers when persons are brought dead to the institution, and of withholding them when they die within its walls.

The practice of withholding fees in such cases is in England almost universal with regard to hospitals, although some county councils do allow such fees to be paid to medical officers of workhouses, workhouse infirmaries, and cottage hospitals. In countries with modern legal enactments, such as the Commonwealth of Australia and New Zealand, the fees are payable in all cases. In this matter the medical profession has the sympathetic support of the coroners of the country, who fully recognize but have no power to remedy this curious anomaly. The Departmental Committee expressed the opinion that there could be no good reason for withholding fees in such cases, and that the restriction should be removed.

The Departmental Committee also recognized the necessity for the provision of adequate fees for the services of expert pathologists.

With regard to the employment of pathologists, the question as to the position of the ordinary medical attendant in such cases arises. The Association has long contended that in the elucidation of the cause of death it is in the public interest to make use of all available clinical evidence in addition to that of the pathologist, and that the practitioner who has been in attendance should be summoned to attend the *post-mortem* examination in order that his clinical knowledge of the case may be available for the assistance of the pathologist. It has never been contended that the practitioner who has been in attendance is necessarily the most suitable person to give evidence or to make the *post-mortem* examination, or that the coroner is legally bound to direct him to do so; but it has been contended, and rightly, that in cases in which he is not summoned he should be invited to be present both at the inquiry and the examination.

This point was accepted by the Departmental Committee, which, however, recognized that the coroner might be placed in a difficulty, inasmuch as on a strict interpretation of the existing law he is prevented from paying both the medical witness who gives clinical evidence and the pathologist who makes the examination. The Committee recommended that the coroner should be empowered to summon and pay such medical witnesses as might be necessary for the proper determination of the case.

The adoption of this recommendation would dispose of the vexed question of the unsatisfactory position occupied by medical practitioners with regard to furnishing coroners with information which may determine the necessity for an inquest. It has long been the custom for medical practitioners in this country to supply coroners (without fee) with any information that can assist in determining the necessity, or otherwise, for the holding of an inquest, with the result that what was originally an act of grace on the part of the profession has come to be regarded more or less as an obligation by certain coroners, who upon occasion have made unfair use of information so received and have held inquests without taking the medical evidence of which they have, so to speak, obtained private information from the practitioner concerned, or who have decided when placed in possession of such information that it is unnecessary to hold an inquest. In contingencies such as these it is quite exceptional for the practitioner concerned to receive any fee, although the course decided upon has been determined by the information obtained from him—information which he is under no statutory obligation to supply, although he has upon occasion been accused of neglect of duty when it has not been forthcoming.

A very large number of medical practitioners appear to be in ignorance of their true position in the matter, and to believe that they are bound to assist the coroner in this way; but it is quite clear that there is no legal obligation upon a medical practitioner to render any assistance to coroners in investigating the cause of death other than that of making a *post-mortem* examination, when so ordered in writing by the coroner, or to attend and give evidence at an inquest when duly summoned to do so.

It therefore seems to be very desirable that, if the preliminary inquiry made by a coroner is to be regarded as an integral portion of State procedure in the elucidation of the cause of death, and there is much to be said in favour of the adoption of such a course, it should be regularized by legislation which would definitely determine the obligations and duties of coroners, medical practitioners, and public, and which would in addition define the fees to be paid for services rendered by the various parties concerned.

The Committee pointed out that in Scotland the Procurator-Fiscal has a much freer hand, and recommended that certain features of the Scottish system might with advantage be adopted in England and Wales with the view of preventing the holding of unnecessary inquests. The report of the Committee states:

> There is great, and we think justifiable, dissatisfaction in the medical profession with the scale of fees in coroners' courts and the methods of their allocation. We think that the whole matter should be dealt with by regulations and not by the iron-bound provisions of an old statute.

Strong representations were made with regard to the holding of inquests upon persons dying under an anaesthetic. It was contended by the Association that a lay body could hardly be considered efficient to deal with such questions, and recommended that inquiry in such cases should in the first instance be privately made by a medical authority appointed by the Home Office. If it were then found that a public inquiry was desirable it should be held by a High Court tribunal with medical assessors. This point was also recognized to some extent by the Committee, which was of opinion that every death under an anaesthetic should be reported to the coroner, who should make inquiry, but that if he were satisfied that all due care and skill had been exercised, it was undesirable that an inquest should be held.

The coroner's officer of to-day occupies an important but anomalous position. He has no legal status, there are no necessary qualifications for the office, and any information given him is given purely as an act of grace by the informant. His duties are, notwithstanding, very important, as he, under direction of the coroner, makes those preliminary inquiries upon the result of which the coroner decides whether or not an inquest shall be held.

The Committee fully recognized this curious position, and expressed the emphatic opinion that he should always be an acting member of the police force, for the reason that the fees paid were inadequate to obtain the services of a good man who was dependent upon them for his livelihood, whereas if a police officer were appointed they would be paid to the police fund and not to the officer, and there would then be no temptation to make illegitimate profits.

With regard to coroners' juries, it was contended that they were of no real value for the purpose of investigating the cause of death. If twelve members of a jury agree, it

would appear that the coroner is bound to accept their verdict no matter how insensate it may be; if he alters it he may be guilty of forgery! Two verdicts were quoted before the Select Committee in 1893, and appear in the report:

1. The man died from stone in the kidney, which stone he swallowed while laying in a gravel path in a state of intoxication.
2. A child three months old found dead, but "no evidence to show whether born alive."

No suggestion was made by the Committee as to replacing the jury by some other machinery, but it was recommended that in cases of perverse or foolish verdicts the coroner should take the verdict, and that as the question of delay is one of great importance, he should be empowered to apply immediately to a judge in chambers, who would authorize him to summon a new jury. It was further recommended that any riders passed by the jury should be separate from the verdict and endorsed upon the back of the inquisition, and that the coroner should be at liberty to record his dissent and give his reason for so doing.

This, in the opinion of the Association, did not go far enough, for it would not prevent juries from reflecting upon the conduct of individuals who had not been afforded an opportunity of giving evidence on their own behalf, and this we know to be a far from unusual occurrence.

Recommendations were made by the Committee with regard to many other important points, and it is satisfactory to notice that these recommendations were largely in accord with the views put forward in the memorandum submitted by the British Medical Association, and it is much to be desired that they shall not be lost sight of. This comparative statement of some of the principal points that affect the profession and the public welfare clearly shows the need of reform, and it is a matter of importance that the question of reform should not be allowed to fall into abeyance for long. It is much to be hoped that, when the present crisis that has overtaken the profession has passed away, the Association will once more put its shoulder to the wheel in order to prevent the work it has done from being wasted, and will agitate until the whole subject is rescued from that limbo of forgotten things to which it seems to be at present consigned.

## YELLOW FEVER COMMISSION (WEST AFRICA), 1913.

THE Secretary of State for the Colonies has appointed a Commission to study the nature and the relative frequency of the fevers occurring amongst the Europeans, natives, and others in West Africa, especially with regard to yellow fever and its minor manifestations.

The funds for the investigation will be provided by the West African dependencies. The members of the Commission are:

Sir James Kingston Fowler, K.C.V.O., M.D., D.Sc., F.R.C.P. (Chairman), Major Sir Ronald Ross, K.C.B., F.R.S., M.D., F.R.C.S., D.P.H., I.M.S. (ret.), Colonel Sir William Leishman, F.R.S., M.B., K.H.P., R.A.M.C., Professor W. J. R. Simpson, C.M.G., M.D., F.R.C.P., D.P.H.

*Secretary.*—Mr. A. Fiddian, of the Colonial Office.

*Assistant Secretary.*—Mr. T. F. G. Mayer, M.R.C.S., L.R.C.P., West African Medical Staff.

In the absence of special reasons, the Commission will not proceed to West Africa, but local investigators will work under its direction at certain centres. As at present arranged, those centres will be Freetown in Sierra Leone, and Sekondi and Accra on the Gold Coast. The investigators will be:

*Freetown.*—Major J. C. B. Statham, R.A.M.C., Sanitary Officer of the Command, and Mr. G. G. Butler, B.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P., of the West African Medical Staff.

*Sekondi.*—Mr. H. S. Coghill, M.B., B.Ch.Edin., D.T.M.and H. Cantab., Assistant at the Medical Research Institute, Lagos, and Mr. H. M. Hänschell, M.R.C.S., L.R.C.P., D.T.M.and H. Cantab., Senior Demonstrator at the London School of Tropical Medicine.

*Accra.*—Mr. G. E. H. Le Fanu, M.B., C.M.Aberd., D.T.M. Liverpl., of the West African Medical Staff, and another.

The investigation will be set on foot towards the end of April or early in May. Endeavours have been made to enlist the co-operation of all medical men practising in the British dependencies in West Africa, whether as Government medical officers or otherwise.

## THE PARLIAMENTARY COMMITTEE ON PROPRIETARY MEDICINES.

### THE MEDICAL PROFESSION AND PROPRIETARY PREPARATIONS.

ON April 17th the examination of Mr. E. J. Parry, analytical chemist retained for the purposes of the inquiry by the Proprietary Articles Section of the London Chamber of Commerce, was resumed.*

In reply to Mr. Glyn-Jones, the witness said that his main objection to the volumes, *Secret Remedies* and *More Secret Remedies*, was with regard to the inferences drawn from what was found by analysis. In certain instances he would expect any analyst to come to the same conclusions, but he objected to the inferences drawn.

Mr. Glyn-Jones: You put in, for the private information of the Committee, certain testimonials given by members of the medical profession in regard to a proprietary medicine. Can you explain in any way why medical men, apparently of high standing, should write testimonials for proprietary and secret medicines?

The Witness: This particular proprietary remedy contains a most valuable drug, recognized by the medical profession.

Is it within your knowledge that it is not an uncommon thing for the medical profession to write testimonials of this kind?—It is a very common thing indeed.

Can you offer any explanation? Are they paid for it?—Oh, no. That would be a grave breach of professional etiquette; I should say that would hardly ever be done.

You think medical men genuinely believe, though they do not know what the article contains, that it is a good thing?—I am confident of it.

In this particular case have you any knowledge whether the doctors when they wrote the testimonials knew of this special ingredient to which the article owes its merit?—I should say certainly not; they were speaking from the results of their own trials.

Mr. Newton: It seems difficult to believe that a doctor would give a testimonial to a medicine which promised to do practically everything.

The Witness: It is only rarely they promise that; in the majority of cases the claims are limited.

Asked by Mr. Newton how he proposed to deal with the cancer and consumption cures which he condemned, the witness said that since the remedy already at hand—an action at common law—was never set on foot, these preparations should be suppressed altogether. The diseases mentioned were known to every intelligent person to be incurable by mere drugs; it was a question of treatment rather than drugs. As this was an admitted fact it was not fair that the public should be defrauded by them.

In reply to Dr. Chapple, the witness said that a preparation claiming to do the impossible should be prohibited. In the case of the preparation as to which he had put in testimonials from medical men, the important constituent was a well-known drug in constant use under another name.

Dr. Chapple: Do you think it right that any one who likes can take a well-known drug, give it a new name, and advertise it as though it was something unknown to the profession?

The Witness: That is a question of ethics. In this case I should say "Yes." A really excellent remedy is to hand which a limited number of the profession know. In order to make it more widely known, and so to bring relief to a larger number of people, a large amount of money must be spent on advertising. You will not get a philanthropist to do that; you must give him some trade rights or it will never be done.

Are there not sufficient facilities in the medical profession for spreading this knowledge without the assistance of lay persons? Does the education of the profession depend on the proprietary medicine vendor?—I will say that the education of a very large number of practitioners depends on the firms who make or pack

* BRITISH MEDICAL JOURNAL, April 19th, 1913.

drugs, and not on the textbooks. The amount of money spent on travellers who call upon doctors to induce them to prescribe nothing but a given firm's remedies is enormous. The ingredients of compressed tablets, for instance, are known, but it requires the expenditure of an enormous amount of money to ensure that the medical man will add the initials that will secure that a particular firm's compressed tablets are used.

What is the inducement to use a particular drug when it does not differ from any one else's?—With the greatest respect to the medical profession, it is because they are exceedingly prejudiced with regard to drugs. There can be no reason why a doctor should prescribe a given brand except that doctors are susceptible to being talked over by travellers who can talk.

Is not the appeal to the medical man based on the ground that the maker has managed to combine the ingredients in such a way that they are simple, elegant, and easily dispensed?—Yes, but only in the same way that twenty other makers have done.

But you do not instruct the doctor in the therapeutic value of the drugs?—You persuade him that your substances, which are identical, are better than other people's.

But you would not presume to tell the doctor the value of the drugs?—I think you will find that that is just what you do tell doctors. In support of this remark the witness quoted an advertisement in the BRITISH MEDICAL JOURNAL in which the diseases that a given remedy was claimed to cure were mentioned.

Dr. Chapple: But these synthetic remedies are quite different from secret ones. Suppose some one comes to the doctor with a preparation called "Cureit," and asks him to try it for this and that disease?

The Witness: The doctor does it.

Upon no evidence except that a layman tells him these things?—They do.

Dr. Chapple: That is not my experience, and I am surprised that it should be yours.

In reply to Mr. Bathurst, the witness said he thought the practice under the Pharmacy Acts of putting the word "poison" on the bottle was preferable from the public point of view to the disclosure of the name of the poison that the preparation contained. As to making it an offence to advertise remedies for incurable diseases, Mr. Bathurst asked the witness whether he would advocate a public prosecution rather than a civil action in dealing with this.—The witness replied in the affirmative, and said he would make it a penal offence. He added that there should be sufficient power under the Indecent Advertisements Act to deal with remedies of an undesirable character in connexion with sexual diseases.

Mr. Bathurst: Various witnesses have suggested that a doctor's chemical knowledge is lacking?

The Witness: The curriculum is too short.

Dr. Chapple: Is it not carried on by the study of medical literature?

The Witness: Yes, but also by literature emanating from private firms.

Mr. Bathurst: Are you of the opinion that a sufficient education of the doctors in chemistry and therapeutics would put a stop to what, to my mind, is an undesirable way of educating the profession?

The Witness: No. The average doctor is a very busy man, and he will prescribe something that is easy to obtain.

Dr. Chapple: Do not these firms depend upon doctors for their information in the first instance?—I think not.

At the request of the Chairman (Sir Henry Norman), the witness made a general statement of what he regarded to be the possibilities of analysis. He said that in the case of purely organic drugs the difficulty of analysis increased enormously as the number of ingredients present increased. The vast majority of organic drugs—important ones—did not contain such identifiable principles as a glucoside or an alkali, and when they were alone, more certainly when they were in mixtures, the analyst had to rely on some other method than chemical means. In the case of a liquid the microscope was useless, and the analyst had to fall back on taste and smell. Broadly speaking, he could only get analytical results consistent with about twenty different formulae.

The Chairman put it to the witness that, according to his statement of the limits of analysis, any person, having made up a preparation of no real medicinal value, could protect himself by adding to the preparation six familiar drugs in very small quantities and then claim that the formula was totally undiscoverable by analysis.

The witness replied that the average vendor did not need to put in fictitious drugs for the purpose of "fogging" the analyst because the ordinary formulae of such remedies presented sufficient difficulties. He did not think such an action was at all usual, although it was possible. In analysing proprietary remedies, he had never found drugs which gave any evidence of having been included for such a purpose as the Chairman had indicated.

The witness said, in reply to other questions, that he had no suggestion to make as to the way in which exaggerated statements in proprietary medicine advertisements could be supervised. He thought the difficulty would be met in a great measure by prohibiting the advertisement of remedies for a specified list of diseases.

The Chairman: What is the ethical position of a doctor who prescribes remedies of whose composition he knows nothing, and who does so in the way you have described, at the suggestion of an advertising firm?

The Witness: I think he knows generally that when people spend money and time advertising a preparation there is reason to believe that the remedy may do good.

Would you be content with that?—That is the doctor's standpoint; he does it.

The Chairman: Do you realize that your series of criticisms of the medical profession, added together, really make a grave charge? You have told us that doctors are widely ignorant, that they do not know of the existence of a great many drugs, that they are very credulous, that they are easily talked over—I presume by glib salesmen—and that they are inadequately equipped from an educational point of view.

The witness objected that some of these expressions had been put in his mouth by questioners. He did say that the time at doctors' disposal was short for instruction in pharmacy, chemistry, and materia medica. That was acknowledged by every medical man.

The Chairman: You also said in effect that their education was incomplete until the proprietary medicine vendor had rounded it off.

The Witness: Words were put in my mouth to force me to that. I do say that their education in these matters is not adequate; there is not sufficient time. That is borne out by the fact that the General Medical Council is prolonging the curriculum by fifteen months. In support of his view that doctors prescribed proprietary medicines to a considerable extent, and also that they were ignorant of the composition of many of these preparations, the witness declared that medical men "rushed" for antikamnia, whereas under the name of Daisy Powder they condemned it. The ingredient of both, he said, was acetanilide. The medical profession to a limited extent prescribed medicines of which they knew nothing, and to an enormous extent those of which they had only a very little knowledge. In conclusion, the witness remarked that nearly every case of death from self medication had been due, not to a proprietary medicine but to poisonous drugs sold under their own names. More people had been killed in one year by veronal before it was put on the poisons list than had been killed in a hundred years by proprietary medicines.

In thanking the witness as he withdrew, the Chairman remarked, "I hope you will not get into trouble with any of your medical friends."

### ASSOCIATION OF WHOLESALE DRUGGISTS.

Mr. R. C. WREN gave evidence as Secretary of the Association of Wholesale Druggists, which, he said, was composed of firms supplying packed medicines to the working classes through the channel of shopkeepers who were not registered chemists and druggists. The articles dealt in were mainly well-known drugs and medicines or simple compounds intended for use in minor and common ailments. The association asked that in any fresh legislation the right should be preserved of referring to the human body and its organs, and to the names of illnesses, on the labels of the preparations he had alluded to, without liability for stamp duty being incurred.

# UNIVERSITY OF LONDON.

## FINAL REPORT OF THE ROYAL COMMISSION.

[SECOND NOTICE.]*

### NO MEDICAL FACULTY.

THE strict application of the principles laid down by the Commissioners with regard to what constitutes University education, or perhaps it would be better to say the strict terms in which those principles are defined, has led to at least one surprising result, which is that the new University of London as they conceive it would start, and it seems probable would long remain, without a Faculty of Medicine. This recommendation must seem to many so much of the nature of a step backward, that the arguments of the report and all its conclusions are at once laid under some suspicion; this suspicion will not be allayed when it is remembered that, though the commission had the advantage of hearing many competent medical witnesses, no member of it has had any practical experience of medical education, its methods or its needs.

### DEFECTS IN CLINICAL LECTURES.

The conclusion rests on what may seem a rather sandy foundation—an opinion that the clinical lecture or demonstration in London is insufficient and ill-prepared, because the clinical teacher is hampered by the demands of private practice, the want of an adequate staff of highly trained and skilled assistants, and time and laboratory facilities for research. To the London-trained practitioner of medicine who remembers the important part the clinical lecture or demonstration played in his own education the conclusion will, when first presented, probably seem wholly untenable. But a more careful consideration of the grounds upon which the conclusion is based may show that there is a good deal of truth in the assertion that, though the clinical lecture, founded on French models and greatly developed by some great teachers, was long one of the two chief means of clinical education, it has not in recent years undergone in London the development necessary to fulfil the more complicated requirements of modern medicine.

The Commissioners appreciate the high value of the British system of clerkships and dresserships by which the student is brought at an early stage into direct relation with patients, and indeed of the whole system of progression from clinical clerk to house-physician or house-surgeon by which his responsibilities are gradually increased. They would retain this system and combine it with the German professorial system of the hospital unit, as Sir William Osler retained and combined it at Johns Hopkins Hospital. There would be no difficulty about this; it would, in fact, be in the line of the natural evolution of medical education in this country. But the Commissioners have been so strongly impressed by the arguments of the advocates of the hospital unit system as to be induced to conclude that there is no hope for medical education in this country save through it.

It will not be disputed that the complete clinical study of many types of cases in the wards demands a much greater expenditure of time, a stronger body of assistants, and a much more complete armamentarium than thirty or forty years ago. The recognition of this fact is essential to progress, and the Commissioners are to be thanked for putting it so clearly before us; but to propose on that ground to refuse to the medical schools and medical teachers their place in the sun, and to seek to deprive them of their proper share in the direction and administration of the University, is to ride a hobby to death.

### MEDICAL SCHOOLS OF THE UNIVERSITY.

As stated in the first notice of the report, the Commissioners propose that the existing medical schools in London should be recognized as University Schools in Medicine. The definition of "School" is that it is a public educational institution, or a group of departments in a larger educational institution, which is not under the educational and financial control of the University, but complies with certain conditions set out in the existing statutes of the University. Of these the most important are that in deciding on the claim of an institution to be admitted in whole or in part as a school of the university the Senate shall have regard to the following matters: (*a*) The general character and financial position of the institution; (*b*) the adequacy in number and qualifications of the teaching staff; (*c*) the University standard of the teaching; (*d*) the adequate provision of laboratories and other appliances necessary for giving instruction in the subjects in respect of which the institution seeks to be admitted; (*e*) the conditions as to age and attainments on which students are admitted; (*f*) the number of students proceeding or likely to proceed to degrees in the University; (*g*) the relation of the institution to any other University.

### BOARD OF MEDICAL STUDIES.

The principal teachers in the Schools of the University would be grouped into Boards of Studies. Each such board, the Board of Medical Studies, for example, would prepare the curriculums and syllabuses of examinations for students in the Schools of the University, and would report these curriculums and syllabuses for approval to the Senate. The examinations would be conducted by boards of examiners consisting in the main, as at present, of teachers in the schools, together with at least one external examiner in each subject appointed by the Senate. The Commissioners, while prepared to recommend that candidates who have not studied in schools of the universities should be admitted to the general examinations in all cases in which exclusion might involve individual hardship or injustice, are of opinion that no such hardship could arise in the case of medicine and engineering. Upon this they make the following observations:

> The courses of study for these degrees are professional in their aim, they are of necessity very largely practical in character, and they are intended to fit their holders to follow occupations which closely affect the safety of the public. This combination of characteristics differentiates them from all other degrees awarded by the University. We are convinced that the University should grant its first degrees in medicine and in technology only to those who have undergone a course extending over at least three years, which is under the control of the University itself, and given either in a constituent College, a university department, or in a School of the University. The medical evidence we have received on this subject strongly supports this view. The Faculty of Medicine unanimously adopted the following resolution:
>
> > That the Medical Degrees of the University of London should be open only to those students who are students in the Schools of the University.

Moreover, with the exception of the witnesses from St. Mary's Hospital Medical School, all the witnesses from the London medical schools who referred to this matter and a number of other witnesses, urged the abolition of the external degree in medicine. We admit the argument of several witnesses that it is an injustice to doctors who studied in London and obtained the London degree, that the same qualification should be open to students who have never had any connexion with the University beyond sitting in its examination halls. Every school of medicine in the kingdom is now connected with a university, and no hardship would be imposed by requiring that medical students should graduate in the university in which they have studied.

Institutions which refuse, or cannot qualify themselves, to accept these conditions would still be allowed to present their students for general examinations for degrees, provided they comply with the conditions laid down for the recognition of Schools of the University, and their teachers would be members of a Board of Medical Studies (with power to appoint committees), which would advise the Senate through the faculties on the syllabuses and courses of study for the general examinations; but the institutions themselves cannot be included as constituent colleges or departments of the University into which they do not come, and their teachers cannot constitute the faculty of the University, which, so far as is consistent with the academic interests of the University as a whole, will have the direction and control of the medical education provided by the University. The question whether an institution does or does not form an integral part of the University, one with it in interest, in spirit, in educational standard and aims and ideals, is a question of fact, and there is no room for compromise. The financial and educational control, direction, and

* The first notice was published on April 19th, p. 836.

administration must belong to the University, otherwise it is impossible to establish within it the academic freedom and autonomy which we are convinced are essential to its existence and development.

### Possible Organization of Medical Colleges in the Future.

When eventually, as it is hoped, the medical schools or some of them qualify to be admitted as Constituent Colleges of the University, it would be the medical school and not the hospital which would be incorporated, and arrangements would have to be made between the University and the governing body of the hospital with respect to the use of the hospital for the purposes of medical education and research, and with respect also to the appointment of those teachers in the medical school who from the nature of their work must also be members of the staff of the hospital. In further reference to this matter the Commissioners, after stating that Constituent Colleges, or University Departments, in the Medical Faculty of the future would have the same control over the University examination of their students as Constituent Colleges or Departments of other faculties, continue as follows:

The difficulty about the medical schools is that if they were all to agree to come into the University in the sense we have described, it would probably be found impossible, even on their present financial basis, to continue them all as institutions for the instruction of undergraduate students. The great defect of the present system in London is that it dissipates its strength upon unnecessary multiplication of undergraduate teaching on identical lines without providing opportunity for extensive study of particular subjects, while resources unrivalled in variety and extent are either neglected altogether, or are largely wasted for want of time and training on the part of those through whose hands the materials pass. In a great University Faculty of Medicine, developed in an indefinite number of directions, there would not only be a large increase of post-graduate work and research, but there ought to be a much wider range of undergraduate study than there is at present. This does not mean that undergraduate work would be separated from more advanced work by any hard and fast line. We think more freedom for the student is desirable than the English system provides. If his general education is good and his scientific training is what we hope to see, he ought not to be treated as under authority through his whole course to the same extent as at present. The matter is not free from difficulty and even danger. Regulations of the University would be necessary, but in proper cases the student ought to be able to arrest almost at any stage the general course of his necessary medical training in order to pursue further than is required of him any subject which fascinates his attention and appeals to his mind. There is no difficulty for such a man in returning to his regular course and completing it with increased power, greater self-confidence, and more of the initiative which should come from the side of the learner. There would be some risk of the unstable and the incompetent going astray, but there are methods of guidance by counsel and criticism well known to the teacher and very freely exercised by fellow students which should restrain him. In any case, we think it is a risk which must be run in the interest of the competent men of original mind. The university student is not a schoolboy, and the best results for the best men should not be made difficult or impossible.

But although in these and other ways there is ample scope for the development of medical education in London, the fact remains that it would be impossible for the University to absorb and continue the whole of the London Medical Schools to do their present work. They are kept alive partly by traditional loyalty and partly by the other causes to which we have already referred—the desire to maintain the status and efficiency of the hospitals, the desire to teach and do hospital work, and the professional advantages which usually accompany the holding of hospital appointments.

### First Steps.

The Commissioners recommend that a Faculty of Medicine should be constituted when funds are available for the payment of the Professors and Readers they deem necessary, and when the University obtains financial and educational control of one or more medical schools attached to a general hospital.

They recommend that the proper course for the University would be to endeavour in the first instance to enter into an agreement with the executive authority of one or more of the London hospitals with regard to the future of the hospital medical school. As was stated in the first notice of this report the Commissioners have in mind the establishment of hospital units for medicine, surgery, and gynaecology respectively. Each unit would consist of

a professor with the control of wards; an out-patient department; assistants nominated by the professor with a view to complementing his own knowledge and affording him the special assistance he requires to carry on research in the direction in which he is interested; and, finally, laboratory accommodation in close proximity to the wards, not only for the service of the wards and the examinations and procedures connected with the diagnosis and treatment of the cases, but also for the purposes of research.

On this suggestion they make the following observation:

For scientific instruction in medicine the kind of teaching known as the clinical demonstration or lecture appears to us of great value, and we think in some form or other it ought to be systematically given. The time and knowledge required for this kind of teaching cannot be expected from the man in large practice. It needs a man who is devoting his life to the pursuit of science in his subject, and who is aided by a competent staff of assistants.

### Appointment of Teachers.

With reference to future appointments it is recommended that the appointment to the staff should be made by the governing body of the hospital, and to the teaching post by the University, both bodies being advised by a joint committee consisting of representatives of each. In connexion with the higher appointments the joint committee would ask for a report from a board of advisers and would eventually report to the Senate. It is believed that in this way the staff of the hospital and college would gradually be organized and co-ordinated in accordance with university ideals, and the whole course of the students' education from the time they enter the college rendered thoroughly scientific in principle. It is calculated that the complete organization of the hospital staff on university lines would thus be brought about in a period not exceeding twenty years at the most. When this result had been achieved the Faculty of Medicine would consist mainly of university professors and other teachers of standing in the university medical colleges, together with professors of subjects such as public health, forensic medicine, and mental diseases comprised in the Faculty but not necessarily taught within the medical colleges themselves, with perhaps, in addition, some eminent members of the medical profession who were not teachers of the University.

In entering into negotiation with a London hospital and its medical school the University would propose to appoint three professors—of medicine, surgery, and gynaecology respectively—in connexion with the hospital, together with the assistants above mentioned, and to undertake to pay both the professors and assistants, provided they were appointed to the staff of the hospital and had an adequate number of beds assigned to them. The Commissioners' suggestion of the way in which this proposal might be worked out in practice is as follows:

This would have to be arranged either by the retirement of some members of the existing staff, or by the transfer of beds from them all, or, in all probability, by a combination of both methods. It would certainly make things easier if the senior physician and surgeon on the staff whose terms of office would, in any event, be near completion, were to retire. For the present no other change would be necessary in the existing staff of the hospital. The professors would confine their instructions during the period of transition to the final year of the curriculum, and the present physicians and surgeons of the hospital would continue their teaching as before, and would be members of the Faculty of Medicine of the University. It is, of course, necessary that the University, together with the governing body of the hospital, should have a free hand in selecting and appointing the professors, but it is by no means impossible that in some cases the best man for the post would be found on the existing staff of the hospital, and would be willing to accept the appointment. It must be borne in mind that one important reason for proceeding slowly is that there would be a

difficulty in finding at present any large number of men fitted for the position of clinical professors, and willing to accept the chairs.

FINANCE.

As was stated in the previous notice, the estimate for the cost of the maintenance of a medical unit is £4,000, so that for the three units recommended each college would have to be provided with £12,000 a year, or for the three colleges deemed necessary, if all the London University and Oxford and Cambridge students are to be provided for, a total of £36,000 a year. This estimate proposes that the professors in the Faculty should receive not less than £1,000 a year, and a reader not less than £300. The professor would not be wholly debarred from private consulting practice, and it seems to be contemplated that an assistant, after serving in that capacity for seven years, should give up his university work and take to private practice, but remain eligible for promotion to the professoriate when a vacancy occurred.

*(To be continued.)*

## LITERARY NOTES.

PROFESSOR JAMES STUART relates in his *Reminiscences* (1912) that at Cambridge he knew Professor Willis, whose death some eight years later led to his own appointment as a professor. Willis, he says, was a very interesting man, of extraordinary ability as a handicraftsman. He was a son, or grandson, of the Dr. Willis who attended George III when he was insane. Professor Stuart says he heard that George III had to affix a stamp for his signature to death warrants, because when allowed to sign with a pen he always wrote, "Hang Willis!" This is not unlikely, for Willis was said to have treated his royal patient with great harshness.

Another anecdote told by Professor Stuart shows Sir George Humphry's ingenuity in getting out of what to many doctors would have been a tight place. At a dinner at Cambridge, the conversation having turned on some medical matters, W. G. Clark, then public orator, said to him: "Take care now, Humphry, what you say, for I am going to tell you a story. Before you knew who I was I came to you, and said I was not feeling very well, and having described my symptoms you said, 'What do you take for your lunch?' and I said, 'A glass of sherry and a biscuit.' 'That is the cause,' you said, 'take a glass of beer and a mutton chop.' I did so, and after some time, the symptoms recurring, I came to you again. You had forgotten all about me, and when you heard them you said, 'What do you take for your lunch?' I said, 'A glass of beer and a mutton chop,' and you said, 'That is the cause of it; take a glass of sherry and a biscuit.'" To which Humphry replied, "I believe I was right in both cases. It was a change you wanted."

The phrase, "Who shall decide when doctors disagree?" which has become a part of the language, is constantly quoted as if it referred to doctors of medicine. It is held, indeed, to enshrine the proverbial tendency to disagreement among medical authorities. The reference is, however, to "doctors" or authorities in general. It is the opening line of the third of Pope's Moral Essays, which is addressed to Lord Bathurst, and deals with the abuse of riches. The poet asks:

> Who shall decide when Doctors disagree,
> And soundest Casuists doubt like you and me?

After summarizing his own views and those of the nobleman to whom the epistle was addressed, he says:

> Like Doctors then, when much dispute has past,
> We find our tenets just the same at last.

Doctors of medicine, as a matter of fact, probably disagree less than men of other professions. It may be said to be the business of lawyers to disagree, and from the warmth of theological controversy, even in these days of large tolerance, it is easy to understand how ready divines in days of more fervent faith were to use the stake as an argument against those who differed from them in opinion. The quarrels of literary men are proverbial; and, although a modern philologist would probably not say to a rival, like Dr. Cherubino in the *Golden Legend*:

> May he send your soul to eternal perdition
> For your treatise on the irregular verbs,

his unexpressed thought is doubtless often very much to the same purpose.

That Latin as written by many journalists and authors is a dead language is sufficiently shown by the corrupt fragments so freely strewn about certain kinds of current literature. A few specimens were given in the JOURNAL of April 12th. Since then we have come across another sample which proves that, even when Latin was the common tongue of educated men, learned doctors sometimes used it as barbarously as the least classical of moderns. In a passage on the death of Gabrielle d'Estrées, quoted from the *Mémoires* of Pierre de l'Estoile by a writer in the *Chronique Médicale*, La Rivière, physician to Henry IV, is said to have left the king's mistress in her last agony with the edifying but ungrammatical exclamation, "*Hic est manus divinum!*" We hope that the blunder is that of the historian, not of the physician!

We have received a copy of the first number of the *Hungarian Spectator*, a periodical published under the auspices of the British American Literary Society in Hungary. It is hoped to convert it into a monthly devoted to spreading a knowledge of Hungary and its institutions and literature among English-speaking people, and to encourage the study of English literature in Hungary. The editor is Dr. Arthur B. Yolland, chairman of the society. The number before us contains articles on the mission of Hungary, by Count Albert Apponyi; interesting reminiscences of Hungary in Great Britain by Professor Arminius Vámbéry, and an essay on Shakespeare in Hungary—a brief review of Hungarian contributions to the world-wide literature that has gathered round the author of Hamlet. Mr. Desider Rozsa writes on the English psychological novel, taking the works of George Eliot, Meredith, and Thomas Hardy as his text. Other articles deal with modern Hungarian drama, and the conquest of Hungary. One object of the *Hungarian Spectator* is to bring prominently before British and American readers the health resorts and the wealth of healing and other natural springs for which Hungary is already famous. Our contemporary is very optimistic as to the future of Hungary as a place for visitors when its attractions come to be known, and goes so far as to say that Hungary will undoubtedly one day receive due appreciation as the El Dorado of tourists. Our new contemporary is excellently printed, without any of the distortions of our English speech that make English periodicals and books printed abroad so irritating. We wish its founders and promoters success in the object at which they aim.

Our American contemporary, *Surgery, Gynecology, and Obstetrics*, has added a new and very valuable feature to its contents. This is an *International Abstract of Surgery*, which is published in collaboration with the *Journal de Chirurgie* (Paris), the *Zentralblatt für die gesamte Chirurgie und ihre Grenzgebiete* (Berlin), and the *Zentralblatt für die gesamte Gynäkologie und Geburtschilfe sowie deren Grenzgebiete* (Berlin). The *International Abstract of Surgery* is intended to be: (1) A comprehensive index of surgical literature from all sources, arranged anatomically under departments, giving the author's name, subject of communication, and the name and date of the journal in which the article appeared; (2) an abstract of the surgical literature of all countries, prepared by the combined efforts of the German and French journals that have been mentioned, and a special staff for America and the British Empire. This will include abstracts and reviews of (*a*) original articles, (*b*) monographs, (*c*) books, and (*d*) clinics. It is stated by the managing editor, Dr. Franklin H. Martin of Chicago, to be the first journal in the English language "devoted exclusively and comprehensively to indexing and abstracting the surgery of the world." The *International Abstract of Surgery* is, in fact, a distinct journal supplementary to *Surgery, Gynecology, and Obstetrics*. It is excellently arranged and beautifully printed, and the illustrations are admirably reproduced. To specialists in the various provinces of practice which it covers it will be invaluable. The English editor is Sir Berkeley Moynihan.

M. Chacornac, of Paris, will publish a French translation of the complete works of Paracelsus. The first volume has already appeared, and there will be thirty in all. The translator is M. Grillot de Givry. The translation has been made from the Latin and collated with German editions of the works of Paracelsus.

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SATURDAY, APRIL 26TH, 1913.

## HOUSING OF THE WORKING CLASSES.

THE time of the House of Commons on Friday, April 18th, was devoted to a second reading debate on the Housing of the Working Classes Bill, introduced by Sir Randolph Baker. It is commonly known as the Boscawen Bill, for it is practically identical with the bill introduced by Sir Arthur Griffith-Boscawen last year as it was amended in Committee. The bill secured a second reading by a majority of 140, the minority against it being only 41. As was the case last year, the bill had to encounter the opposition of the President of the Local Government Board; but he did not divide the House against it, and, as Mr. Burns failed to put forward any constructive proposals of his own to deal with what was recognized to be an urgent need, it was evident that his attitude of opposition met with little sympathy in any part of the House.

A private member, however, cannot secure the passing of legislation which involves a charge on the Exchequer unless the Government of the day brings forward a resolution in the House authorizing the Treasury to supply the money required. The Boscawen bill would require a Treasury grant of £1,000,000—that is to say, £500,000 in respect of rural housing, and £500,000 in respect of urban housing; and, if Mr. Burns adheres to his expressed intention not to submit such a resolution, it is evident that the operative part of the bill in respect of making grants to local authorities to aid them in building schemes cannot be passed into law. Other parts of the bill which would secure amendment of other Acts and additional provisions may perhaps secure passage through the House as a shorter bill.

Sir Randolph Baker introduced, and Sir A. Griffith-Boscawen seconded, the bill, which was opposed by Mr. Neilson and Mr. Dundas White. Colonel Kyffin-Taylor, Chairman of the Housing Committee of Liverpool, supported the bill, as did Mr. G. Roberts of the Labour Party, Lord Henry Cavendish Bentinck, and others. Mr. J. Samuel opposed it, mainly on the ground that it was inadequate to deal with the needs of the case. Mr. Walter Long, whilst severely critical of the measure, gave it his general support, stating that he had come to recognize that State help was essential if local authorities were to deal with the question in any adequate manner.

The bill is founded mainly upon the Housing of the Working Classes Act, 1890, which is cited as the principal Act. The main alterations proposed with a view to enforcing the existing Acts are the provision of a special Housing Department of the Local Government Board and the appointment of three Housing Commissioners, one of whom must possess the qualifications of a medical officer of health; another must have had large experience, in rural areas, of the practical development and administration of working-class dwellings, and another, similar experience in urban areas. The Commissioners would be required to ascertain the needs and conditions of various districts, to co-ordinate the work of the various officers of the Board already employed in this work, and to assist local authorities by advice and information. They would annually make a report to Parliament on housing matters.

If it were shown that a local authority was culpably neglecting its housing duties, the Local Government Board, after application to the court, would be empowered to deal with slums and to provide the housing accommodation itself in place of and at the cost of the local authority. The bill would provide (Clause 6) for the relaxation of certain existing by-laws as applied to the new buildings erected, but it would be necessary that they should be constructed in accordance with plans approved by the Local Government Board. It further (Clause 10) would seek to prevent a slum owner from deriving additional compensation because the property to be dealt with was overcrowded, and yielded extra rental on that account. The bill proposes also that the Local Government Board should have power to make grants to a local authority to meet the deficiency arising out of any housing scheme up to, but not exceeding, four-fifths of the deficiency.

Though the bill as a whole cannot become law unless the Government alters its attitude and undertakes to provide the necessary funds, and though in the other event the prospects of the bill, even in a truncated form, are not very bright, yet the debate has shown a current of opinion in favour of legislation on these lines so strong and general that no Government will desire to disregard it. The debate has therefore served a very useful purpose, and marks a distinct step forward.

## FRANCIS BACON ON MEDICINE.

IN his *Treatise on the Advancement of Learning* Bacon has some remarks on the practice of medicine which are well worth attention even at the present day. He says the "variable composition of man's body hath made it as an instrument easy to distemper." The variability of the subject has, he goes on, made "the art by consequent more conjectural; and the art being conjectural hath made so much the more place to be left for imposture." He meets the gibes, so common even now, as to the fallibility of medicine with the following excellent argument: "The lawyer is judged by the virtue of his pleading and not by the issue of the cause. The master in the ship is judged by the directing his course aright and not by the fortune of the voyage." On the other hand, the physician, and perhaps the politician, has no particular acts demonstrative of his ability, but is judged most by the event, "which is ever but as it is taken; for who can tell if a patient die or recover, or if a state be preserved or ruined, whether it be art or accident?" By reason of this imposture often triumphs over knowledge. How little human nature has been changed by the greater enlightenment of which we are so ready to boast at the present day is shown by the following passage: "Nay, we see the weakness and credulity of men is such as they will often prefer a mountebank or a witch before a learned physician. . . . For in all times in the opinion of the multitude witches and old women and impostors have had a competition with physicians. And what followeth? Even this, that physicians say to themselves, as Solomon expresseth it upon a higher

occasion, 'if it befal to me as befalleth to the fools, why should I labour to be more wise?'"

Bacon noted in his day a feature of the medical character which is still conspicuous in many doctors—that is, versatility of mind and corresponding variety of interests. He says: "You shall have of them antiquaries, poets, humanists, statesmen, merchants, divines." Sir Henry Thompson, himself an artist of no mean skill, used to say that he had been struck by the number of collectors and connoisseurs in various lines that he met with among his professional brethren. We do not accept Bacon's further statement, that physicians are "in every of these better seen than in their profession, and no doubt upon this ground that they find that mediocrity and excellency in their art maketh no difference in profit or reputation towards their fortune; for the weakness of patients and sweetness of life and nature of hope maketh men depend upon physicians with all their defects." With all respect to the author of *The Advancement of Learning*, we venture to think that this is something more than paradox; it is perilously near nonsense. The public is a bad judge of a doctor's quality, and even when medicine was as conjectural an art as it was in Bacon's day a reputation for skill must have profited a practitioner, while a name for incompetence must have led patients to seek counsel elsewhere.

Among the "deficiences" of the medical profession he particularly mentions what we not long ago called the waste of medical experience. He condemns "the discontinuance of the ancient and serious diligence of Hippocrates, which used to set down a narrative of the special cases of his patients, and how they proceeded and how they were judged by recovery or death. . . . This continuance of Medicinal History I find deficient; which I understand neither to be so infinite as to extend to every common case nor so reserved as to admit none but wonders: for many things are new in the manner which are not new in the kind; and if men will intend to observe they shall find much worthy to observe."

With Celsus he reprobates the vivisection of human beings, but goes on: "Yet in regard of the great use of this observation the inquiry needed not by him so slightly to have been relinquished altogether or referred to the casual practices of surgery; but might have been well diverted upon the dissection of beasts alive which notwithstanding the dissimilitude of their parts may sufficiently satisfy this inquiry." On the strength of a passage in *Cymbeline*, in which experiments with poisons are denounced, Shakespeare is often cited by the antivivisectionists as sharing their views on the subject. The contradiction on this point between him and Bacon, when speaking in his own name, may supply a new argument to those who think it worth while to spend time in a foolish controversy. Bacon further insists on the necessity of a multitude of *post-mortem* examinations and on the contribution of each practitioner's experience to the general sum of knowledge, with exact references to the diseases and symptoms shown by the appearances seen in the bodies of the dead, "whereas now upon opening of bodies they are passed over slightly and in silence."

Under the heading *Inquisitio ulterior de Morbis insanabilibus*, Bacon reproaches doctors with declining to treat many diseases as in their nature incurable and others as past the period of cure. In this way, he says, they "do enact a law of neglect and exempt ignorance from discredit." There is perhaps still some ground for imputing this to doctors as a "deficience." There is a suggestive passage in Sir James Paget's *Clinical Essays*—we cannot give the reference as we have not the book at hand—in which he urges practitioners to continue the fight against death even when the disease is by all the rules of art incurable. Bacon held that in certain cases euthanasia was not only justifiable but a duty to the patient. He says that doctors "ought both to inquire the skill and to give the attendances for the facilitating and assuaging of the pains and agonies of death."

Another "deficience" which Bacon found in physicians was that they "have not partly out of their own practice, partly out of the constant probations reported in books, and partly out of the traditions of empirics, set down and delivered over certain experimental medicines for the cure of particular diseases besides their own conjectural and magistral descriptions. For as they were men of the best composition in the State of Rome which either being consuls inclined to the people or being tribunes inclined to the Senate; so in the matter we now handle they be the best physicians which being learned incline to the traditions of experience or being empirics incline to the methods of learning." He further complains that the "prescripts" in use are too compendious to attain their end. For he says, "it is a vain and flattering opinion to think any medicine can be so sovereign or so happy as that the receipt or use of it can work any great effect upon the body of man." In view of the amazing illustrations of polypharmacy presented by the prescriptions of the doctors of Bacon's own day and for some three centuries after his time, this complaint is not a little remarkable. One gathers that the doctors of his time very frequently changed their treatment, for he says: "And although a man would think by the daily visitations of the physicians that there were a pursuance in the cure; yet let a man look into their prescripts and ministrations and he shall find them but inconstancies and every day's devices without any settled providence or project. Not that every scrupulous or superstitious prescript is effectual, no more than every straight way is the way to Heaven; but the truth of the direction must precede severity of observance." Not a word is said of the horrible substances then in common use in therapeutics. It is curious also that there is no mention of surgery; Bacon had evidently not the faintest prevision that the art of healing would be so greatly advanced as it has been by the gradual reclamation by the surgeon's knife of the waste land which not long ago formed so large a part of the "conjectural art" of medicine.

## THE ETIOLOGY OF MINER'S NYSTAGMUS.

MINER'S nystagmus, according to Llewellyn, causes an annual loss to the State of over £100,000, as well as an immense amount of suffering to the afflicted miners. The number affected appears to be increasing rapidly, and constitutes a serious charge upon the colliery owners for compensation and loss of labour, and a large loss of wages to the miners. The time is, perhaps, ripe for the appointment of a Royal Commission to investigate the etiology and methods of prevention of the disease.

The exact cause still remains a matter of opinion. At the Oxford Ophthalmological Congress last July miner's nystagmus formed the topic of a formal

discussion which was opened by Mr. Harrison Butler, who expressed the opinion that the prime factor in the etiology was the defective illumination of mines. This view was supported by Drs. Court, Coulter, Cridland, Elworthy, Jameson Evans, Folker, Llewellyn, McMurray, Norman, Ridley, Riseley, and Tomlin, and at the end of the discussion the opinion was unanimously expressed that defective illumination was the prime factor in the causation of the disease. The congress also asked the Government to appoint a Royal Commission. It is obvious, therefore, that practically all the English medical men who have studied the subject are unanimously of the opinion that bad light causes the disease. The view was expressed that, were the use of an electric lamp made compulsory, miner's nystagmus would soon become a historical disease.

The facts which have led to this opinion are, briefly, that the disease is practically absent from candle mines, even in those in which the seams are as low as 18 in., and in which the coal getters have to work in exceedingly cramped positions; and that it is exceedingly prevalent in mines lighted by safety lamps, even in those with seams so high that the holers stand to their work, and do not labour in the cramped position which the late Mr. Simeon Snell believed to be the cause of the disease. These two facts seem to prove conclusively that illumination is the determining factor. They also logically exclude strain of the eye muscles as a prime cause, because the disease is common in mines where the colliers work standing up in comfortable and natural positions.

These views are not universally accepted upon the Continent. At the thirty-fourth Congress of the Belgian Ophthalmological Society, held last November, Dr. Dransart read a paper in which he strongly supported the theory that muscle fatigue was the prime factor, and he stated that all cases showed paresis of the external or internal rectus muscle, but generally, in fact almost always, of the internal. This has been pointed out by Ohm and others, and requires further investigation. In any case, paresis is the wrong word to employ; it would be better to speak of exophoria with Ohm, who has on three occasions advanced the internal recti with some measure of success. Coppez supported the same view, and stated that the graphic record of the nystagmus showed the same type of undulation as was obtained from a fatigued muscle with the myograph (incomplete tetanus). Benoit thought the disease was caused by the effect of the increased atmospheric pressure upon the labyrinth, causing hyperexcitability and labyrinthine nystagmus. Two vital objections can be offered to this hypothesis: the first is that miner's nystagmus gives an undulatory graph, *nystagmus à pendule*, whereas labyrinthine nystagmus is *à ressort*; and the second, that workers in deep metal or diamond mines never develop nystagmus. The question has often been asked, Why do some miners develop nystagmus whereas others escape? Dransart boldly says all the miners who develop the disease have exophoria—that is, insufficiency of the rectus internus. McMurray and many other English surgeons believe that a large number of nystagmic miners have errors of refraction. Some have gone so far as to say that all have some error of refraction. It appears to be a fact that an error of refraction is more frequently discovered among nystagmic miners than among non-nystagmics, but the investigations of Harrison Butler, Cridland, and others show that 100 per cent. is a very excessive estimate. A nervous temperament has been invoked to explain the question, and probably with a considerable degree of truth.

The conclusion would seem to be that the disease is primarily caused by defective illumination, and that errors of refraction and muscle balance, associated in some cases or in all with a neuropathic diathesis, are the determining factors in the incidence of the disease. When it is borne in mind that Llewellyn has shown that the effective illumination of the ordinary safety lamp under service conditions is only one-tenth of that given by the miner's candle with spread-out wick, the importance of illumination will be better appreciated. The probable reason why Dransart and so many of the Belgian ophthalmic surgeons still cling to the myopathic theory is that there are no candle mines in Belgium, so that they have no personal proof of the fact that no matter how confined the seams nystagmus does not arise spontaneously in candle mines.

Since Dransart's paper was published an opportunity has been taken to examine three cases of miner's nystagmus. Tested with the Maddox rod at 20 ft., one of them had 6° of esophoria, and two of them orthophoria. Not one of the three had the paresis of the internal recti which Dransart says is practically always present. It would be well if all surgeons who see these cases were to make a special investigation of the muscle balance.

## CHANGES OF DOCTOR BY INSURANCE PATIENTS.

IT has been assumed by many practitioners that as the arrangements made between Insurance Committees and medical practitioners were for a provisional period of three months, insured persons at the end of that time would be allowed to make a fresh choice of doctor. In areas in which many doctors went on the panels before the abrogation of the pledge of the Association many insured persons, urged by the Local Insurance Committees, put their names down on the list of some doctor who had already joined the panel, although had there been time they would have preferred their own doctor whose name did not then appear there. These latter practitioners looked forward to an opportunity on April 15th to redress a grievance in which they have the entire sympathy of the Association. It appears, however, that the Insurance Committees are averse from approving any wholesale change, and, looked at from their point of view, and indeed from that of a large number of practitioners, the mere idea of what happened in the middle of January last coming over again even on a diminished scale would be most unwelcome. Some other means of redressing this grievance should be found, and we believe can be found.

Apart from the discomfort and extra work which it would entail, there is another reason why such a general reshuffle should not be lightly entertained by the medical profession. In many areas serious difficulties have arisen with regard to the treatment of uninsured persons, and various organizations have advertised for, and we are sorry to say, obtained, the services of practitioners who are willing to take the place of and undersell the practitioners of the area.

Attempts to introduce outsiders have in some areas failed because it was not possible to offer the imported practitioner the cards of a large number of insured persons who, if they had not already chosen their doctor, would, in their desire to defeat

the profession and get attendance for their dependants on cheaper terms, have been willing to select the imported practitioner as their insurance service doctor. In other districts where practitioners have been introduced, their financial position is rendered precarious by the difficulty just mentioned. It is probable that in such areas the profession would in self defence strongly object to a general fresh choice of doctor, and in considering the question this danger—a very real one in some districts—must be kept carefully in mind.

Wherever members of the profession in any area so desire it, however, it will not be difficult for them effectively to meet the case of those practitioners who declined to go on the panel until after the pledge was abrogated. This can be done by allowing them to place upon their lists at once all those patients who, had the delay been longer, would have placed their names there in the first instance. Regulation 26 (*a*) allows of a simple transference of any patient from one practitioner to another by mutual consent, and with no more trouble than the signing of a document by the patient and the two doctors concerned. This method has the merit of being entirely within the control of the profession itself, and for this reason it seems worthy of the serious consideration of the Local Medical Committees in every area when they have to deal with the position of members of the profession who, by their steadfastness and loyalty to the pledge of the Association, have suffered the loss from their lists of insured persons previously among their patients. This suggestion is made in full knowledge of the fact that the London Insurance Committee has thought fit to issue to persons who wish to be transferred from one practitioner to another a circular, in which it not only asks, as is provided by the regulation, for the written consent of the insured person and the two doctors concerned, but also that the insured person shall state his reasons for wishing to change. The natural inference from this demand is that the reason given must be approved by the Insurance Committee. There is nothing in Regulation 26 which gives an Insurance Committee a right to make any such demand. It looks almost as if the London Insurance Committee were trying to discourage changes in the medical list, and thus drive a coach and horses through the Act and Regulations. Not only is it illegal and unnecessary to impose on the insured person the obligation to state in a document of this kind the reasons for desiring a change, but it would be a most invidious proceeding for him, and he might quite conceivably fear that it might lead to difficulties not unconnected with the law of libel. The provision in Regulation 26 is a perfectly straightforward method of approximating the conditions of insurance practice so far as change of doctor is concerned to those of general practice, and it seems to be altogether improper for any Insurance Committee to seek to put unnecessary difficulties in the way. The State Sickness Insurance Committee so soon as the circular of the London Insurance Committee was brought to its notice decided to send a protest both to the Insurance Committee for the County of London and to the Insurance Commissioners. The terms of this protest are given in the report of the proceedings of the Committee published in the SUPPLEMENT this week. It is to be hoped that the Commissioners will at once require the London Insurance Committee to withdraw a circular which is not only mischievous, but, as we submit, clearly *ultra vires*.

## THE ROYAL MEDICAL BENEVOLENT FUND.

THAT life is extremely uncertain even in the case of the young and apparently healthy is a very trite saying; but few observations of the sort become trite unless they are in essence both true and useful. Of the truth of this particular observation there is constant evidence even in our own obituary columns. In this week's issue, indeed, there is a notable instance in point. It is also a trite saying that virtue is often its own and only reward, and this, too, is not seldom demonstrably true. It is, indeed, again a truth to which our obituary columns this week bear testimony, recording as they do the death of a man who lived a life of utility both to his colleagues and the general public, before he had had an opportunity of making adequate provision for his family. At first sight it would seem as if members of the medical profession least of all men needed reminding of facts of this kind. Practical experience, however, suggests that either familiarity with accidents and death, and financial and other calamities due to sickness and ill health, produce in them a certain contempt, or that the circumstances of their lives prevent them paying due heed to such matters. However this may be, it remains true that medical men habitually take risks about their health such as in their patients they would utterly condemn; and that while many medical men make nothing more than just enough to cover the daily outgoings of a family, practically all are so occupied in looking after other people as to have little time to devote to their own private affairs. The net result is that it is by no means rare for members of the medical profession either to die leaving behind them wives and children for whom they have been unable to make any adequate provision, if indeed any provision at all, or practically to complete their professional career without having been able to set aside anything for the time of age and natural infirmity. Instances of such events are by no means rare in our own columns, and occur with lamentable iteration in the lists of those whom the Royal Medical Benevolent Fund has been able to assist during the previous few weeks or months. The position which that fund has attained has been recognized by His Majesty the King, who has recently accorded it the right to substitute the present for its original title, the British Medical Benevolent Fund. Further testimony has also been forthcoming from Prince Arthur of Connaught, who has agreed to take the chair at a dinner in furtherance of the objects of the fund at the Hotel Cecil next Wednesday, April 30th. It is a fund which grants assistance, so far as circumstances permit, to all medical men who are in distress from age or illness, as also to the widows and children of deceased medical men. It is therefore fully entitled to the support of British medical men wherever they practise, and should receive it plentifully, since the annual reports leave no doubt whatever that it is admirably managed by its committee, and more especially its officers—the president, Sir John Tweedy; the treasurer, Dr. Samuel West, of 15, Wimpole Street; the chairman, Dr. Parker Young; and the honorary secretary, Mr. W. E. Sargant, of St. Bartholomew's Hospital. On the financial side there is conclusive evidence to this effect in the fact that, despite the number of private inquiries which have to be made before assistance is given, the working expenses barely exceed 5 per cent. of the gross income. Those conversant with the administration of charitable enterprises need scarcely be told that this is a somewhat notable record. In regard to income, the authorities of the fund look to the medical profession itself in the first instance; but they also consider that the fund has a claim upon the public, which can never pretend that it acquits its full debt to the medical profession by payment of the fees demanded by individual medical men. This is a point worth bearing in mind, for, besides assisting the fund by

donations and subscriptions, small or large, medical men can also attempt to assist it by mentioning its existence to their wealthier patients. Sundry items in the accounts furnished in the annual reports suffice to prove that when such attempts are made the members of the public approached often prove glad that a form of charity in which they can take a real interest has been brought to their notice. To recur once more to the dinner next Wednesday, it should be noted that, of the many ladies expected, some will be present in a kind of official capacity. This is due to the fact that the experience of the fund convinced it some three years ago that personal service by ladies would be of great advantage in its work. A guild was brought into existence, which now has branches scattered all over the United Kingdom, and conducts its highly successful work on a semi-independent basis. On its general council, which has as president the Dowager Lady Broadbent, are the wives of many well-known medical men; while its executive committee has as chairman Lady Tweedy, other officers being Mrs. H. D. Rolleston, Mrs. Liveing, and Mrs. Garrod. The honorary treasurer is Mrs. Scharlieb, and the visiting secretary Mrs. Fuller. The members of this guild, apart from collecting funds, make a regular practice of visiting and assisting in many practical ways those who are beneficiaries of the fund. They do such excellent work that the foundation of the Royal Medical Benevolent Fund Guild must be regarded as one of the happiest thoughts that have ever occurred to the authorities of the parent body.

## THE TITLE OF DOCTOR.

By long use and wont the title of "doctor" has come to be almost universally applied by the public to all practitioners of the healing art whether their qualification to practise be derived from a university or a chartered corporation. The same custom exists in other countries, but nowhere else, perhaps, is the word so generally used, both in a collective and particular sense—both for the members of the profession as a body, and for individuals. The Royal College of Physicians of London, by the alteration recently made in its by-laws, has recognized this fact. Formerly it forbade a diplomate to make use of the title of "Doctor"—to call himself "Dr. ——" on a door-plate or visiting card—unless, of course, he possessed a doctor's degree from a university. Many Licentiates have been at a good deal of pains to carry out the spirit of the regulation by trying to induce the public not to apply the title to them. The effort has for the most part left the public puzzled and indifferent, and the use of the title by it has become more rather than less common. Under its amended regulation, the Royal College of Physicians will no longer require its diplomates to refrain from the use of the title of "Doctor," recognizing that it has acquired an occupational significance. It will, of course, not countenance the use of the letters "M.D." or of any locution, such as Doctor of Medicine, which has an academic or university signification, for it does not under its charters possess the right of conferring a degree. The by-law, as it was finally adopted at the meeting of the College on December 12th, 1912, was published in the Journal of December 21st, p. 1734. The alteration is shown by the words in italics which have now been omitted: "No Fellow, Member, Extra-Licentiate, or Licentiate of the College shall *assume the title of Doctor, or* append to his name the title of Doctor of Medicine, or the letters M.D., or any other letters indicating that he is a graduate of a university, unless he has obtained a degree entitling him so to do."

## TOWN PLANNING ACT AT WORK.

To those who are concerned with the improvement of the housing conditions of many of our towns it is provoking to reflect that many of their difficulties have been caused by the haphazard manner in which, within quite recent years, streets have been laid out and houses have been erected. Existing highways, whatever their width or however tortuous they may have been, have been built upon without any thought of the effect to be produced in the future. The result has been that whole streets have had to be widened and dangerous corners rounded off at very considerable cost. One of the objects of the Housing, Town Planning, etc., Act, 1909, was to prevent a repetition of the errors of past years, and by enabling local authorities to prepare anticipatory schemes with respect to "any land which is in course of development, or appears likely to be used for building purposes, to secure proper sanitary conditions, amenity, and convenience in connexion with the laying out and use of the land and of any neighbouring lands." When a local authority desires to carry out this provision of the Act, the first step is to obtain the consent of the Local Government Board to the preparation of a suitable scheme: and, the scheme having been prepared, it must receive the approval of the Board, who may either modify it, or impose such conditions with respect to it as may be considered desirable. Several local authorities have already been authorized to prepare schemes, including the corporations of Birmingham, Bournemouth, Chesterfield, and Rochdale, and the urban district councils of North Bromsgrove, Oldbury, and Ruislip-Northwood. The scheme of the last-named authority has, we believe, reached a more advanced stage than that of the others, and a local inquiry on behalf of the Local Government Board was opened on April 17th. The area concerned surrounds the Ruislip Manor estate, which is to be laid out on garden city lines by a company whose dividends are limited to 5 per cent.; any surplus profits, after making provision for proper reserves, must be devoted to the purchase, provision, and maintenance of parks, pleasure grounds, open spaces, and public buildings. The entire area to be covered by the two schemes is nearly ten square miles in extent. The district is served by no fewer than six railway stations, from which London may be reached in from eighteen to forty minutes, so that there is a good prospect of the development schemes being successful. The main features of the district council's scheme include new and improved lines of road connecting the estate with the railway stations, main roads, and other approaches to the neighbouring towns and villages and towards London; the allocation of certain areas for special purposes or different classes of buildings, such as shops, private dwelling houses, factories, etc., in order to protect the residential amenities; the provision of open spaces, both public and private, and the limitation over the whole district of the number of houses to be placed on a given area. It is anticipated that the maximum number of houses to the acre will be twenty, and that in many instances there will not be more than eight or ten. It is thought that while the indiscriminate mixing of large and small houses is not desirable, a judicious proportion of medium-sized houses may be distributed among the larger ones without depreciating the value of the latter, and that provision should be made in special areas for housing the working classes employed in connexion with the larger houses. The housing accommodation for the working classes at present existing is quite inadequate, and an effort at improvement is being made by the formation of the Ruislip Manor Cottage Society, which as a public utility society can obtain two-thirds of the cost of erecting houses from the Public Works Loan Commissioners. This society has already approved schemes for building 150 small houses, which can be let at rents varying from 6s. to 15s. a week. The tenants will be entitled to share in the surplus profits in addition to interest on any moneys they may invest in the society. Unlike many other similar profit-sharing schemes, there is provision for the acquirement of his house by a tenant, who will be required

to make an initial payment of from £25 to £100 and an annual payment equal to the rental.

## THE PROFESSION OF THE FUTURE.

THE philosopher Descartes said that if the human race is to be perfected it is in medicine that the means to that end are to be found. Diderot, who, though not a member of the profession, took a great interest in the science, and wrote much about it and physiology, was even more persuaded of the truth of Descartes's maxim than that philosopher himself. He found the means of perfection in disinterested medicine. Here we may be allowed to say that, although of course there have been rapacious doctors, the profession as a whole, especially in modern times, has shown the world the unique spectacle of a body of men actually working against their own interests. Sanitary science, whose aim is the protection of the health of the community and the steady diminution and ultimate abolition of infectious diseases, is the result of medical research. If doctors consulted only their own selfish interests, they would not strive so earnestly as they do to suppress diseases that are so abundant a source of profit. People of the intellectual calibre of Viscount Harberton, better known as the Hon. Ernest Pomeroy, call doctors "fee hunters" because they advocate vaccination. Has this ornament of our hereditary legislature attempted to estimate how much more medical practitioners would benefit financially if small-pox were as prevalent as it used to be in pre-Jennerian days? To return to Diderot, he was probably inspired by the great physician Bordeu. He said there were no books that he read more willingly than those treating of medicine, no men whose conversation was more interesting to him than that of doctors. He had grasped the importance of the experimental method and had by scientific second sight seen the shadows cast before by physiological discoveries which were to be made by that method long after his death. Mr. Stephen Paget in the *Letters and Memoirs* of his distinguished father relates that Sir James Paget one evening at Grillon's sat between Mr. Gladstone and Mr. Matthew Arnold. The talk turned on professions. Arnold said that he had been much impressed in America by the superiority of the doctors over the clergy and the lawyers. Mr. Gladstone said that the medical profession, steadily developing and improving, was the profession of the future. This is not the only time that Mr. Gladstone expressed his belief in the great destiny of the medical profession. At the opening of the Medical College of Guy's Hospital on March 26th, 1890, he said that now, both from social considerations and likewise from the immense and steady advance in knowledge of his great science, the doctor was from year to year, from generation to generation, becoming a more powerful and important person as a portion of the social machine. Nor was this a mere outburst of enthusiasm inspired by the occasion. Many years before, at the dinner held in connexion with the Annual Meeting of the British Medical Association in London in 1873, Mr. Gladstone spoke of the change that increase of knowledge had made in the medical profession. It was impossible, he said, even to an observer from without, not to see the doctor's greater and more sustained earnestness of purpose; the elevated sense of his professional dignity; the desire to make it subservient to the good of humanity; the general exaltation of his aims. He added that the course of affairs tended in every way to show that this process was continuous. The position of the profession had long been, and he thought must continue to be, one of constantly increasing influence and power. Mr. Gladstone's testimony to the growing importance of the profession is all the more striking in view of the fact that he never seems to have realized that the public health was any concern of the politician; even his intimate friend, Sir Henry Acland, could not arouse in the man whose intellectual curiosity was of the most encyclopaedic range any interest in a thing which should be among the first cares of a statesman. But, although his propliecy has not yet been fulfilled, we think that in his vision of the profession of the future Mr. Gladstone showed a surer appreciation of the truth than some of the politicians into whose hands the divine lyre of his oratory has degenerated.

## SALVARSAN AND EPILEPTIFORM CONVULSIONS.

LAST year there was an important discussion in the Berlin Dermatological Society[1] on a paper by Dr. Fritz Lesser entitled "Epileptiform Convulsions following the Administration of Salvarsan." A number of instructive points were raised by various speakers with regard to the complications, and in some instances the fatal results, following salvarsan, and the general trend of the discussion was critical. In his concluding remarks Lesser said that he had collected 18 cases of epileptiform convulsions which he had divided into two groups: 12 in which the attacks occurred from three to five days after the intravenous injections, and 6 in which the attacks were observed nine weeks or more after the injection. He has since reported that the cases in which acute attacks had followed salvarsan have doubled in number, and has expressed the opinion that they are more common than was thought. Some cases of this kind must pass unrecognized. In those instances in which the attacks occurred suddenly three to five days after the intravenous injection, and were similar in character, they could only be referred to a single toxic agent. He pointed out, too, that of the 18 cases mentioned in his paper recovery occurred in 2 only. Necropsies revealed mostly a lepto-meningitis, less commonly of a haemorrhagic nature. This may be compared with the experimental results of Marschalko, who observed meningeal haemorrhages after injecting salvarsan in animals. Nor did F. Lesser accept the Herxheimer reaction as an explanation of the convulsions. The fact that in half his cases the attacks only occurred after the second intravenous injection was greatly against such an explanation. How to avoid complications was, he considered, difficult to decide. If small doses were injected nervous symptoms might occur, and if the doses were too large epileptiform convulsions might result. Nor could he accept Ehrlich's view that in cases presenting malaise, headache, and so forth, small doses only of salvarsan should be injected, as such symptoms indicated the presence of spirochaetes in the brain. Lesser had shown, on the other hand, that epileptiform convulsions had occurred in patients who had not presented any such symptoms before the injection. In conclusion he pointed out that it was necessary not to be hasty in employing salvarsan. A complication or accident following the exhibition of salvarsan in the primary and early stages of syphilis might be justified by the fact that an attempt at a *therapia sterilisans magna* had been made. He insisted on the value of salvarsan when used in such circumstances, but it was quite another matter to employ the drug in other stages merely because the Wassermann reaction happened to be positive.

## OFFENSIVE DRINKING WATER.

RECENTLY in certain districts the water supplied by the Metropolitan Water Board has not been up to the usual high standard so far as taste and smell are concerned. About the middle of February isolated complaints were made as to the taste and smell of the water. These complaints would seem to have been dealt with effectively, and all went well for some three weeks, but then a large crop of complaints, much more widespread and serious, arose. All sorts of allegations were made about the water: it was said to taste oily, or like paraffin, or to

[1] *Verhandlungen der Berliner dermatologischen Gesellschaft* (1911-1912). Berlin: Karger. 1913.

smell fishy. No doubt there was just cause for complaint and some reason for fear lest the cause of the disagreeable odour and nasty taste might be injurious to health. There was a feeling of relief when the Water Board authorities were able publicly to state that the water, although disagreeable, was not dangerous to health. The Board's officers grappled with the question energetically and decisively, and soon the scare was over. For the last month the water has flowed as clear and sweet as of old. We understand that the source of all the trouble was the water from the Staines reservoir. This great reservoir, which has a site-area of 500 acres and a total capacity of 3,338 million gallons, was constructed by the water companies interested, and the inlets and outlets were placed in the same tower. The circulation of the water throughout the vast area was thus rendered physically impossible. Moreover, the water began to be taken in on May 16th, 1902, and was allowed to lie without being drawn until December, 1904. This stagnation gave the various forms of algae a splendid opportunity to grow, decay, and sow the seed of future trouble. Even public bodies learn by experience, and we believe that not only have steps been taken to ensure circulation of the water in the Staines reservoir, but in all the new reservoirs devised by the Water Board the utmost care is taken to have a full and free circulation throughout their whole extent. Staines under the circumstances afforded a habitat favourable to the growth of algae, and water from this reservoir carrying these plants found its way to the filters. There these organisms formed a skin on the surface of the sand, decomposed, and gave rise to the odour and taste complained of. The particular algae which have been detected are tabellaria and asterionella, the former being in larger number. Both of these growths produce taste and smell in water, and their presence would account for the condition of the water during the period of which we speak. In America these algae, flowerless plants of simple cellular structure, have given a great deal of trouble, and the scientists in that country have fought these insignificant but disagreeable organisms energetically and with considerable success. There can be no doubt that those who have the charge of caring for the quality of the water supplied to London, as well as those in a like position throughout the country, are quite up to date with the best methods of dealing successfully with these growths, so that we may hope that this somewhat exceptional experience will not recur. It is also a matter for thankfulness that, so far as we know, algae or their products do not give rise to disease; indeed, it is highly probable that if those who drank the water and justly complained of it had not been endowed with taste and smell, they would have drunk the water without being a penny the worse.

## SCHOOL DENTAL CLINICS.

THE term "school dental clinic," though still comparatively novel, has been used so frequently in connexion with medical inspection of elementary schools during the last year or two that probably many people are under the impression that institutions of the class to which the phrase is now commonly applied came into existence for the first time as a consequence of the Elementary Education (Administrative Provisions) Act, 1907. This, however, is not really the case; there were school dental clinics in existence long before the passage of that Act. As far back as 1897 the Local Government Board issued a formal Order authorizing the appointment by boards of guardians of dental officers to attend to the teeth of the children in Poor Law schools, and laid down the main principles on which the work should be done. Over ninety boards of guardians in London and the provinces sooner or later took advantage of the permission granted, and still maintain the school dental clinics established by them. Even before this date the Local Government Board had agreed to sundry boards of guardians undertaking work of the same order on behalf of the children under their charge, and some of these have had dental clinics at work ever since 1892. Such clinics have also been maintained for a good many years at practically all the reformatory and industrial schools under the control of the Home Office. A complete list of these, as also a good deal of information on the whole subject, may be found in the second edition of a pamphlet[1] published by the School Dentists' Society. The latter, which came into existence some fourteen years ago and had as first president Mr. Sidney Spokes, was the offspring of a committee appointed by the British Dental Association in 1890 to investigate the dental condition of the elementary school population. This committee in its turn was largely indebted for its existence to the energies of Mr. W. MacPherson Fisher of Dundee, who, we believe, should be credited with being the first person publicly to recognize the importance of the whole question and to endeavour to direct attention to it. At the annual meeting of the British Dental Association in 1885 he read a paper contending that the teeth of a child required, and should receive, precisely the same degree of care as any other part of its body. Every child's mouth, he argued, should be examined and treated at the beginning of school life, and subsequently at least once a year, or oftener. At further annual meetings Mr. Fisher returned to the subject, and in 1888 secured the passage of a resolution by which the association agreed to make a grant for the purpose of providing case-books wherein any of its members willing to take the trouble could record their observations of the teeth of school children, and thus either corroborate or refute the statements made by Mr. Fisher in regard to the disastrous condition of the teeth of the children of the nation. The net outcome was the appointment in 1890 of the committee which has been mentioned.

## NOGUCHI'S CUTANEOUS LUETIN REACTION.

WHEN Noguchi found that the *Spirochaeta pallida* could be grown in pure culture it was an easy step to develop a skin reaction for syphilis analogous to von Pirquet's test for tuberculosis. Noguchi's test emulsion is called luetin. It is an extract of the cultivated *Spirochaetae pallidae* killed by heat and carbolized with 0.5 per cent. phenol. The control emulsion is similar, but has not been inoculated. In the *Archives of Ophthalmology*, January, 1912, Dr. Cohen of New York describes the method of using luetin and the nature of the reaction. The emulsion is drawn into a syringe with a fine sharp needle, and one drop is injected not under, but into, the skin of the arm. A drop of control is injected into the opposite limb at a corresponding spot. In *non-syphilitic* cases the results are as follows: on both sides there is no inflammatory reaction, and all signs disappear in forty-eight hours. In *syphilitic* cases a characteristic series of changes occur at the site of the luetin injection. There first appears in from six to twenty-four hours, or even later, a papule surrounded by a bluish-red halo. The papule grows, and the halo vanishes. The papule, which is from 5 to 10 mm. in diameter, develops in the majority of cases a central area of suppuration which eventually ruptures. A sero-purulent fluid escapes, and there is denudation of the contiguous epidermis, and a hypertrophic condition of the skin supervenes, which may last for some months. Noguchi finds that this pus is uniformly sterile. The control injection generally causes no reaction, but in a small number of cases the appearances resemble the luetin reaction, except that no hypertrophy of the skin follows. Cohen, as the result of the application of the test to 60 cases, found that in 76.6 per cent. the luetin reaction corresponded either

[1] *The School Dentists' Society: Objects and Aims.* Second edition. 1913. Watford: Published for the Society by W. Michael and Son. (Crown 8vo. pp. 113. Price 1s. net.)

with clinical evidence or with the result of a Wassermann test, and in 23.5 per cent. it did not so correspond. The cases which did not correspond fall into two categories: in the one, despite the old infection of syphilis, the clinical and serological evidence could not be found at the time of making the luetin injection. These are latent cases of syphilis, and the detection of the disease is highly desirable and yet difficult. In the other group the activity of the disease is so strong that the patient is incapable of acquiring the anaphylactic condition necessary for the reaction. The test will probably be greatly improved, and may become a valuable aid to diagnosis. It has in 170 cases proved harmless.

## TREATMENT OF THE TYPHOID CARRIER.

A CASE of chronic typhoid intestinal carrier cured by the administration of an autogenous vaccine is reported by Drs. Donald H. Currie and F. H. McKeon.[1] A somewhat similar case was reported in 1911 by Major R. W. Clements and Captain A. Dawson, R.A.M.C.[2] In this case the man had been inoculated against typhoid fever in April, 1909. In September, 1909, he was admitted for typhoid fever, which proved to be a mild attack, but left some pain over the region of the gall bladder. At the Enteric Convalescent Dépôt he was found to be a chronic "intestinal carrier." In February, 1910, an autogenous vaccine was prepared; six injections were given, beginning with a dose of 125 million, increased later to 600 million. The last injection apparently produced an acute attack of cholecystitis, which, including a relapse, lasted over a month, but afterwards the bacilli could not be isolated from the stools. Owing to the grave risk of carriers spreading disease among the troops a subcommittee of the Army Medical Advisory Board was appointed to investigate the treatment of typhoid carriers; but unfortunately, in spite of a great deal of work, no satisfactory solution was found. The Army Council has ordered that unless a "carrier" elects to remain in hospital for further treatment he is to be invalided out of the service after a period of three months' observation in England. The subcommittee classified carriers into four groups: (1) Pure intestinal carriers; typhoid bacilli are only excreted in the faeces. (2) Urinary cases; typhoid bacilli are only excreted in the urine. (3) Intestinal cases with symptoms of inflammation of the gall bladder; typhoid bacilli are excreted in the faeces, but obviously have a focus in the gall bladder. (4) Mixed intestinal and urinary cases; typhoid bacilli are excreted in both urine and faeces. Cases belonging to this last group are apparently exceptional. There is a good deal of evidence to show that the typhoid bacilli are discharged from some necrotic patch or abscess cavity which may be situated in the liver, gall bladder, intestine, kidney, or urinary passages. This explains the difficulty of effecting a cure, since any remedial agent introduced into the circulation is prevented from coming into contact with the growing typhoid bacilli by the surrounding mass of necrosed tissue. Various forms of treatment have been tried.[3] Two intestinal carriers were treated with cultures of the Bulgarian lactic acid bacillus grown in sterile diluted malt extract. The daily dose was at first only 25 c.cm., but in the course of three months it was raised to 300 c.cm. daily. In one case the effect was to reduce temporarily the number of typhoid bacilli excreted in the stools; in the other the typhoid bacilli disappeared, apparently permanently. Experiments *in vitro* showed that the resistance of the strain of typhoid bacilli excreted by the first man to lactic acid bacilli was much greater than of that excreted by the second man. In other cases antityphoid vaccine was used. The treatment was begun with the ordinary prophylactic vaccine, using a dose of 400 to 500 million, which was very soon increased to 1,000 million; the injections were given at intervals of a week to ten days. After some five to six injections, as there were no signs of improvement, an autogenous vaccine was prepared and used for each case. Unfortunately, this did not have any effect in reducing the excretion of typhoid bacilli. Antiseptic treatment has also been used. In one case a reduced diet was tried, together with the administration of urotropine and castor oil. It reduced the number of bacilli from 470 million per gram of faeces to 2 million in the course of a week, but the man's general health suffered, and he refused to continue the treatment. Two days after his return to ordinary diet the typhoid bacilli had increased to 212 million per gram of faeces. Capsules containing cyllin were tried, but did not influence the excretion of bacilli. Medical izal oil (six minims in two ounces of an emulsion four times a day) seemed to exert a favourable influence, but the patients objected strongly to the drug and refused to continue the treatment. In one instance, an intestinal carrier, the area of the gall bladder was *x*-rayed three times a week, ten exposures altogether being given. During the treatment and for three weeks after it no typhoid bacilli were found in the stools. The bacilli then appeared again; after a fourth course of *x* rays no more bacilli could be found. It must, however, be noted that this patient was an intermittent carrier, his stools having been on one occasion free from typhoid bacilli for six weeks. The application of *x* rays over the kidneys was tried in a urinary carrier, but without effecting any permanent benefit. It has been determined by experiment that the typhoid bacilli cannot grow in a medium the acidity of which is +50; an attempt was therefore made to increase the acidity of the urine of two urinary carriers artificially by administering benzoate and acid phosphate of soda. It was found impossible to maintain the high acidity of the urine. Urotropine also failed to influence the excretion of typhoid bacilli in a urinary carrier. Niepratsck[4] reported an instance in which a chronic urinary carrier was apparently cured by borovertin, 1 to 1.5 grams, six times a day. This drug is hexamethylenetetramine triborate, urotropine being hexamethylenetetramine. Irwin and Heuston in a chronic female urinary carrier tried urinary antiseptics, and then autogenous vaccination; finally, under sodium lactate the urine became clear and the excretion of typhoid bacilli finally ceased.

[1] *Journal of the American Medical Association*, January 18th, 1913.
[2] *Journal of the Royal Army Medical Corps*, vol. xvi, p. 420.
[3] Fawcus, Kennedy, and Cummins: *Journal of the Royal Army Medical Corps*, vol. xiv, p. 351.
[4] Ledingham and Arkwright: *The Carrier Problem in Infectious Diseases*. Arnold, 1912.

## THE TROPICAL DISEASES RESEARCH FUND.

THE report of the Advisory Committee for the Tropical Diseases Research Fund for the year 1912 has been issued. In noticing the report for 1911 we gave some account of the constitution, objects, and resources of this fund, and it will be sufficient now to recall that the income of the committee consists of grants from the Imperial Government, the Government of India, and from the governments of certain dominions and colonies. The total amounted last year to £3,245. The fund was expended in grants to the London and Liverpool Schools of Tropical Medicine and the Universities of London and Cambridge. The amount so expended exceeded receipts by £588, and the schools of tropical medicine are warned that the grants for this year must be reduced. The report has seven appendices. The first contains reports of antimalarial measures in the Crown colonies and protectorates; the second and third are reports from the Professor of Protozoology in the University of London, and from the Director of the Quick Laboratory, Cambridge; the fourth and fifth are reports from the London and Liverpool Schools of Tropical Medicine respectively; the sixth consists of reports of work done in the colonial laboratories, and the committee expresses regret that these are not so numerous nor so complete as in former years, but at the same time

it is satisfied that excellent work is being carried out in these laboratories, and trusts that it may be found possible in future to increase the opportunities afforded for research work in the colonies. Among these reports are two on the work done at the Institute of Medical Research, Kuala Lumpur, Malay States, covering the period from October, 1911, to September, 1912, and dealing, among other matters, with the causation of beri-beri by polished rice. The importance of the matter to the States is shown by the statement of Dr. Fraser, the director of the laboratory, that in 1911 there were admitted into the Government hospitals of the Federated Malay States 5,340 cases of beri-beri, of whom 695 died. The patients were almost all Chinese, of whom there are 433,244 in the Straits Settlements. The deaths from this disease in 1911 numbered 2,056, as against 1,737 in the previous year. An alcoholic extract prepared from "polishings"—that is to say, material rejected in the process of polishing rice—was prepared, and it was found valuable both as a curative and prophylactic agent in fowls. The seventh appendix is a report by Captain Potter, R.A.M.C., on vomiting sickness in Jamaica. The general conclusion is that the term "vomiting sickness" should be abandoned, as the majority of deaths ascribed to it are due to yellow fever.

## A HUMAN AQUARIUM.

AN interesting though somewhat nauseating account is given by Dr. W. Sternberg[1] of a French circus artiste named Norton, whose gastronomic feats were discussed by Dr. Paul Farez in the *Revue de Psychothérapie*. One of Norton's performances is the swallowing of 5 to 7 litres of water at one draught, and the expulsion of the fluid by the mouth, either in a fine jet or in a torrent, as the showman may direct. The performer experiences no discomfort or nausea while playing the part of an ornamental fountain, nor does he mind retaining the water for an indefinite period. This performance alone is worthy of our close attention and of the pennies of side-show patrons; though it is merely the starting-point for yet more wondrous feats. Having taken some water, Norton swallows five to ten living frogs, and reproduces them still alive after a short sojourn in his belly. The disappearance of a live frog down the artiste's gullet, and the reappearance of the frog's legs between his lips before it is finally removed in triumph from his mouth, produce those thrills and sensations among the spectators which it is the aim of the successful showman to evoke. Another successful "turn" is the swallowing of ten frogs, followed by as many goldfish, whose susceptibility to changes in their environment is well known. Yet, at the showman's command, they reappear none the worse for their pilgrimage. It is a curious fact that, though the frogs are swallowed first, they are also the first to reappear. The goldfish must consequently have passed them somewhere in the stomach. The fluid ejected at will is perfectly clear and contains no mucus. In this fluid the artiste washes the frogs before they and the goldfish start on their downward journey; and in it, too, he washes his hands at the end of a performance. By swallowing a couple of electric lamps he is able to display the frogs and goldfish swimming about in their unfamiliar lodgings; and, this, we take it, is the culmination of a performance evidently warranted to draw. Norton is a healthy, powerfully built man of 35, whose organs, apart from his stomach, are said to be normal. No dilatation of the oesophagus or stomach is demonstrable by the *x* rays, and except for its wonderful elasticity and capacity for voluntary contractions the stomach itself presents no abnormalities. Norton's father and grandfather could also drink large quantities of fluid and expel it at will; but only in the third generation does this heirloom appear to have been converted into a source of revenue.

[1] *Deut. med. Woch.*, February 20th, 1913.

## MEDICAL OFFICERS OF HEALTH SUPERANNUATION BILL.

AT the sitting of the House on Friday, April 18th, the second reading of this bill was deferred, as the whole time of the House was occupied in discussion of the Housing Bill. Some of the promoters of this measure do not perhaps fully realize the procedure of the House in connexion with bills of this character. The supporters of the bill were unfortunately not successful in obtaining a place in the ballot which insures discussion of the measure on one of the available Fridays, and without this opportunity it is open to any member of the House, by simply saying "I object," to prevent the second reading of such a bill if Government time has not been allotted to it. The only way to secure a second reading for the bill is for its supporters regularly to note those who object and seek to remove the ground of their opposition by personal explanation and by a systematic campaign for its support amongst members. Unless this kind of thing is regularly done, private bills which are unfortunate at the ballot have very little chance of securing a second reading.

## SOME HEATING AND VENTILATING PROBLEMS.

A NUMBER of leading questions were fired at hygienists and physiologists in the course of a paper which was read before the Institute of Sanitary Engineers on April 2nd. The purpose of the author, Mr. Arthur Barker, was to consider some neglected aspects of the twin problem of heating and ventilation. Although the paper seemed to be little more than a prolonged note of interrogation, it was something gained to have the engineer sitting at the feet of the physiologist and expressing himself able and ready to distribute air and heat to any specification if only he can have some physiological data. Two sets of factors are concerned in the problem—namely, the physical and the physiological; the latter question has a wider reach than the obvious adjustments of the body mechanism; it is concerned also with the subjective sensations. No engineer can wholly disregard the part played by the imagination in heating and ventilating rooms, and while the introduction into sanitary science of this indeterminable element of psychology adds to that science a greater interest and subtlety, it also makes it immeasurably more difficult to reduce it to the figures which the engineer demands. At the root of the whole heating and ventilating problem, however, is the question of the abstraction of heat from the human body, and the author expressed some surprise that this question had not received more analytical consideration. Looking on the human body as a radiator, he estimated that an individual weighing 10 st. had a store of heat within him at any moment equal to 4,000 British thermal units, a British thermal unit being the amount of heat necessary to raise 1 lb. of water 1° F. By radiation and contact of air alone, without taking account of loss by breath and evaporation, it was estimated that such a person might lose 300 British thermal units an hour. But the amount of heat actually lost from the body varied with the body's surface temperature and dampness, with the actual temperature and humidity of the immediately surrounding air, and also with what might be called the general radiant temperature. Physiologists were therefore asked whether it was merely the physical loss of heat which determined the degree of warmth or cold actually felt by a person, and, if so, what were the physical features in the condition of a room which determined the sensation. The thermometer alone could not interpret truly the heating of a room; it could only indicate its own temperature. The human being was more or less in the condition of a wet-bulb instrument maintained at 98°, and parting with heat to air and solid bodies at a lower temperature than its own; while the thermometer was

a dry-bulb instrument at 60°, emitting heat by radiation to bodies on the whole at a lower temperature, and receiving heat from air on the whole at a higher temperature. What, Mr. Barker asked, were the conditions which determined how much heat was abstracted from the body? Could it be accepted as a fact that the main function of ventilation was to control this loss of heat? He complained that engineers were working in the dark with regard to the hygienic composition of air, and its temperature, humidity, and movement. The causes of the ill effects of respired air were commonly given as excessive temperature, humidity, smell, or stagnation. Yet foul air might be cold, dry, and odourless, and there might be complaints of draughts and of bad air simultaneously. In a final question he took the case of slowly moving air which was neither excessively moist nor excessively hot, and which had no considerable smell and no abnormal amount of dust. Was any definite assurance forthcoming that such air was perfectly good to breathe, without any introduction of fresh air, no matter how many people had already breathed it? And if not, why not? After all, perhaps the matter is simpler than these questions suggest, and the modern doctrine that the sensation of comfort—or, rather, the absence of any sensation of discomfort—is a very fair standard of efficiency in both heating and ventilation may prove to be correct.

### THE LEARNED PROVOST OF STONEHAVEN.

WHEN Emeritus-Professor J. G. McKendrick retired from the active duties of the Chair of Physiology at Glasgow he went to live at Stonehaven, Kincardineshire, where he had built himself a house. He entered the town council and was speedily elected to be chief magistrate, and held that office until the other day. When he recently announced that, owing to the state of his health, he would not seek re-election, the burgesses determined to give expression to their esteem for his eminent attainments as a man of science and his great services to the burgh of Stonehaven by presenting to him a chain of office carrying the burghal coat of arms on the pendant. The chain, the cost of which was defrayed by private subscription, was presented on April 21st, and accepted in a suitable speech by Provost McKendrick.

A MEMORIAL to Dr. Lalcaca, the Parsee physician who lost his life in the brave attempt to save Sir Curzon Wyllie from the assassin in the Jehanghir Hall of the Imperial Institute on July 1st, 1909, was inaugurated on April 18th. The memorial, which is the work of Mr. F. W. Doyle Jones, consists of a bust, in white Pentelic marble with pale green Cippolino plinth, standing upon a pedestal of dark green Tinos marble, and bearing a bronze panel with a suitable inscription; it has been placed in the vestibule of the Jehanghir Hall. Sir M. M. Bhownaggree made the presentation on behalf of the Bombay Committee of subscribers, and gave some particulars of the movement to do honour to the memory of Dr. Lalcaca in Bombay, in London, and in Shanghai, where he had practised for many years. The memorial was unveiled by Lord George Hamilton and accepted by Professor Wyndham Dunstan, Director of the Imperial Institute. A replica of the bust is being erected in Bombay.

AT a meeting of the Child Study Society, on April 10th, it was argued by Mr. Holman that not only should a medical man be regarded as an essential member of a school staff, but there should also be a psychologist on the staff unless the medical member were versed in psychology. One of the best things the Board of Education could do would be to set up a psychology side to its work. Why, he asked, should not those forming the National Union of Teachers start a psychological institute of their own as had their fellows at Leipzig?

# Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

**Tuberculosis (Advisory Committee).**—In reply to Mr. O'Grady, who inquired whether it was the intention of the Treasury to establish the Advisory Council recommended by the Departmental Committee on Tuberculosis, and, if so, would provision be made for the inclusion of representatives of approved societies on such council, Mr. Robertson stated that the answer to the first part of the question was in the affirmative. With regard to the second part he referred to the answer given by the Prime Minister on April 3rd. The function of the Advisory Council was to advise with regard to the application of moneys devoted to research; these moneys were derived entirely from a special State contribution and not from the funds of approved societies as stated in the question.

**Bovine Tuberculosis.**—In reply to Sir Fortescue Flannery, Mr. Runciman said that he did not propose to extend to pigs the Tuberculosis Order relating to compensation for cattle slaughtered on account of tuberculosis.

**Compensation for Tuberculous Cattle.**—In reply to Mr. C. Bathurst, who inquired as to whether in the event of the local authority obtaining from the sale of a carcass of an animal slaughtered under the Tuberculosis Order a greater amount than the sum paid to the owner for compensation, would the excess be paid to the owner of the animal, Mr. Runciman said that, after allowing for reasonable expenses, that would be so, and instructions had been issued to that effect.

**Infant Mortality.**—Mr. King asked the President of the Board of Education whether he was aware that the figures of the recent census entirely disproved the contention that the declining birth-rate was not compensated by reduced infant mortality; and whether, in view of this fact, he would withdraw the present Estimates and propose others based on correct figures.—Mr. Pease said: I have seen no figures of the recent census which tend to show that I have underestimated the number of children in respect of whose attendance at public elementary schools grants will fall due in the financial year 1913–14; but, on the contrary, since those Estimates were framed I have received further returns, showing that the slight diminution in the number of children which was noticed last year has still continued. With regard to the relation between the decline in the birth-rate and in the death-rate as bearing upon the matter, I may point out that the schools feel the whole brunt of the fall in the birth-rate, but only experience a share in the counterbalancing gain arising from the fall in the death-rate.

**School Children (Medical Treatment).**—In reply to Mr. Wright, Mr. Pease stated that 229 local education authorities had shared in the grant of £50,374 16s. 7d. distributed last year, and that the amounts received by the different authorities varied from £2 8s. 3d. paid to Chelmsford to £13,683 13s. 10d. paid to London.

**Sleeping Sickness.**—In reply to Mr. Cathcart Wason and Dr. Chapple, Mr. Harcourt stated that in August last the illness of an official of the Native Department, who had been stationed in the Sebungwe district and who had since died, was diagnosed as trypanosomiasis. A small commission of inquiry was at once formed by the Administration of Southern Rhodesia, and eleven more cases were discovered among the natives, the source of infection being traced to the same or a neighbouring district. Further investigations were being made. The Administrator had informed the High Commissioner that he proposed to remove all natives from these areas to areas free from fly, and the High Commissioner had replied that he was prepared to approve an Order of removal.

**Poor Law Officers' Appointments.**—In reply to Mr. W. Thorne, who inquired whether the President of the Local Government Board would provide in his new Poor Law

Order that no medical or other Poor Law officer should hold office at the same time in any capacity connected with the administration of justice or the registration of deaths, Mr. Burns said that the matter was under the consideration of the Departmental Committee.

**Forcible Feeding.**—In reply to Mr. Keir Hardie and Mr. W. Thorne respecting the death of an inmate of the Stafford Asylum stated to have died as the result of forcible feeding, Mr. McKenna said that the patient died of disease of the heart after forcible feeding; that the patient's death was inevitable if he had been left without food, and that the medical authorities of the institution (which was a hospital and not an asylum) were therefore compelled to take the risk of feeding him artificially. This course was clearly necessary, and the jury so found.

**Boracic Acid in Cream.**—Mr. Charles Bathurst enquired whether the attention of the Local Government Board had been drawn to the action of the Westminster City Council in threatening proceedings against retail dealers in respect of the sale of preserved cream containing less than 26 grains of boracic acid to the pint, on the ground of injury to health, and whether, seeing that Dr. Hamill, the Medical Inspector of the Board, recommended in a recent report to the Board that a quantity up to 28 grains might be permitted in the summer months without injury to health, the Board would issue a circular advising local authorities that no proceedings ought to be taken, provided sales are made in compliance with the recently published regulations, and where the quantity of preservative does not exceed Dr. Hamill's recommendation. Mr. Burns replied that the statement with respect to the Westminster City Council was correct, but that he did not consider it necessary at present to issue such a circular as had been suggested.

**Sheep Disease.**—In reply to Mr. C. Bathurst, who enquired as to whether Mr. F. W. Twort, of the Brown Institution, had successfully cultivated the bacillus of scrapie in sheep, Mr. Runciman replied that he had ascertained that the statement made was incorrect, and that it had probably arisen from some confusion between scrapie and Johne's disease, which was really quite distinct.

**Hop Substitutes.**—In reply to Mr. Rowlands, who inquired whether it was the intention of the Board of Agriculture to introduce legislation to prohibit the employment of hop substitutes, as recommended by the Select Committee on the Hop Industry, 1908, Mr. Runciman said that the matter was engaging the attention of the Board, but he was not able as yet to make any definite statement.

**Rural Housing.**—In reply to Lord Henry Cavendish-Bentinck, who inquired whether the attention of the Local Government Board had been drawn to a statement in the report of Dr. Webb to the Kingsbridge (Devon) Rural District Council to the effect that one-eighth of the cottages in the district were unfit for human habitation and that there was nowhere for the people to go if these were condemned, Mr. Burns replied that the latest report in his possession did not indicate the existence of any such unsatisfactory conditions, but that the matter was being looked into. In reply to Lord Henry Cavendish-Bentinck, who called attention to the report of the Medical Officer of Health for the Sedgefield Rural District Council in respect to houses at Trimdon Grange and Trimdon Colliery, where he stated that after inspection he had only found six out of sixty-three houses fit for human habitation, and what action it was proposed to take in the matter, Mr. Burns replied that the council had applied in January last for permission to build twenty-five houses and for sanction to a loan for the purpose, but that it had not yet furnished the necessary particulars before the application could be further dealt with. In reply to Lord Henry Cavendish-Bentinck, who called attention to the special report of the Housing Committee appointed by the Ramsbury (Wilts) Rural District Council, where it was stated that out of fifty-two cottages in the village of Axford ten had one bedroom only, whilst only seven had three bedrooms, that five cottages were overcrowded, three unfit for habitation, seven are dilapidated, and twenty-six needed general repairs, and, while the Ramsbury Rural District Council admit the need for more cottages, they had decided to defer action in the matter, Mr. Burns stated that he had been in communication with the council for some time, and that the chairman had been interviewed by the Local Government Board, and that the matter was still receiving its attention. In reply to Lord Henry Cavendish-Bentinck, who directed attention to the report of the Medical Officer of Health for Cornwall, in which it was stated that the consumption prevalent was largely connected with the bad housing, and in which it was stated that there was a dearth of houses in eight out of the sixteen rural districts of the county—namely, Boscastle, Camelford, Liskeard, St. Colomb, St. Austell, Truro, East Kerrie, and West Penwith—whilst in the Bodmin district many houses should be condemned altogether, Mr. Burns stated that he was in communication with the authorities concerned, and hoped that the difficulties might be overcome.

### Asylum Officers (Employment, Pensions, and Superannuation) Bill.

This bill has been introduced by Lord Wolmer, supported by representatives of all the parties. It is identical with the bill as amended by the Select Committee last year and represents a compromise to which the different parties have been able to give their consent.

It lays down the principle that excessive hours for attendants in asylums are injurious to the service and contrary to the public interest, and, whilst allowing for ordinary elasticity in administration and for emergencies, institutes a seventy-four hour week for asylum attendants.

The qualification for the superannuation of female established officers or servants of the first class is applied to those who have twenty-five years' service whatever their age, and a qualification of the former bill which applied to those who are not less than 55 years of age is omitted, the length of service being extended from twenty to twenty-five years regardless of age. Special provisions are made to enable the visiting committee to grant allowances to persons incapacitated by illness not due to their own fault and attributable to the nature of their duties, and in a similar way a visiting committee may grant gratuities to dependants. It may also grant gratuities to female officers or servants who retire after ten years' service, on the basis of a return of the contributions under the principal Act, together with a sum not exceeding one-fiftieth of the salary and wages or wages for each completed year of service.

The Visiting Committee is not allowed to delegate their power of dismissal to an individual officer.

Service in parochial asylums in Scotland is to be counted as service in respect of this Act, and provision is made for the sums which are provided under the principal Act to be distributed on the death of a pensioner dying intestate to be distributed in the case of those who are illegitimate by the Visiting Committee according to the directions of the Treasury.

Any established officer or servant may, within three months after the time of the passing of this Act, adopt the provisions of the principal Act as amended by this Act.

Finally, the powers of the Secretary of State under the principal Act are transferred by this Act to the Commissioners in Lunacy.

**Mental Deficiency Bill.**—In reply to Colonel Burn, Mr. Lloyd George stated that the Government intended to proceed with this bill, and to give time for its different stages, and hoped to pass it this session.

**Bee Disease.**—The effect of this bill, which has been introduced by Mr. Runciman, would be to give power to the Board of Agriculture and Fisheries to make orders prohibiting the introduction into England and Wales of any pest or disease affecting bees, and for this purpose to regulate or prohibit the introduction by post or otherwise of bees or any article or appliance used in bee-keeping whereby a pest or disease might be spread, and to make various orders for the administration by local authorities of the necessary preventive and remedial measures.

# Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

### POST-GRADUATE TEACHING IN EDINBURGH.

THE development of post-graduate teaching in Edinburgh has shown steady progress of recent years, so that now the courses which are held every autumn form an integral and important part of the work of the medical school. The terms for undergraduates leave a long vacation of three months during July, August, and September, and this quarter of the year serves as a post-graduate session. During this period the whole teaching staff, with the clinical and laboratory resources of the school, are available for the post-graduates. The preliminary preparation for the present post-graduate movement began in the summer of 1905, and in 1906 a joint committee, appointed by the University and the school of medicine of the Royal Colleges, arranged for a course of three weeks, which was carried through in the month of September, and was attended by over seventy graduates. In 1907 the course was extended to occupy the whole of September, and was divided into two parts, so that graduates could attend for a fortnight or a month as suited their needs and convenience. A course of operative surgery was added in 1908; this has proved to be most popular, the twenty-five places to which it is limited having been taken up each year long before the beginning of the teaching. In 1909 a course upon methods of diagnosis employed in internal medicine was inaugurated for the month of August, and this, as well as the September courses, underwent further development in 1910. A course for specialists in diseases of the ear, nose, and throat was added in 1911; and in 1912 the time over which the courses had extended was augmented by holding a course upon diseases and defects of children during July. The history of the post-graduate movement in Edinburgh has thus been one of cautious but steady progress, and now every summer about 100 graduates (last year they numbered 99) come from all parts of the world to take part in the different courses.

This year (1913) the various courses will be held as before, with the addition of some classes and the deletion or rearrangement of some others. In the second half of July the diseases of children will be considered mainly in the Royal Hospital for Sick Children. In August diagnostic methods in medicine will occupy the greater part of each day, and there will also, as in the past, be teaching in the diagnosis and treatment of morbid pregnancies in the prematernity ward of the Royal Maternity Hospital. The courses in July and August are limited to twenty-five members. September will be fully taken up by the general course on medicine, by various special classes on subjects of recent interest, by the course on the ear, nose, and throat, and by the course on operative surgery. In addition to these, the Executive Committee has decided that there shall be a class upon advanced surgery, dealing with a special region of the body, and for 1913 the region to be dealt with is the genito-urinary tract.

Last year sixty-nine teachers took part in the courses, and this year the number will not be less, for Edinburgh is fortunate in being able to draw upon a large number of extramural lecturers, as well as upon the staff of the university.

### PRESENTATION TO DR. A. M. EASTERBROOK.

Dr. Alexander Maitland Easterbrook, Gorebridge, is the Secretary of the Lothians Division of the British Medical Association, and has also acted as Chairman of the Colliery and Public Works Surgeons Committee for Scotland. His brethren in the Division recognize that Dr. Easterbrook has put in an enormous amount of real work on behalf of the profession in the Lothians both in connexion with the Insurance Act campaign and in the organization of the profession generally. It was therefore thought fitting to acknowledge his great endeavours, and a committee representative of all the three Lothians was formed for the purpose of entertaining Dr. Easterbrook to dinner, and of presenting him with a tangible token of the appreciation of his colleagues.

At the dinner, which took place on March 29th, Dr. John Keay of Bangour presided, and Dr. A. D. R. Thomson of Musselburgh acted as croupier. After the loyal toasts had been given by the Chair and acknowledged by Lieutenant-Colonel Kirk, V.D., R.A.M.C. (T.F.), and Major Cameron of Loanhead, R.A.M.C. (T.F.), Dr. Martine proposed the toast of "Our Guest" in a short and happy manner. Before closing he presented Dr. Easterbrook with a silver cigarette case with suitable inscription and a purse of sovereigns, and Dr. A. D. R. Thomson presented a gold bangle for Mrs. Easterbrook as a token of esteem and of the unselfish interest shown by her in her husband's labours. Dr. Easterbrook, in reply, expressed the pleasure it gave him to accept these tokens for himself and his wife. The toast of "The Committee" was proposed by Dr. Mitchell of Dalkeith in a racy speech, and Dr. Fowler replied. Dr. Ronaldson proposed "The Chairman," and Dr. Keay replied. The menu card, headed "List of Benefits," contained many humorous topical allusions.

### ADVISOR FOR INDIAN STUDENTS IN EDINBURGH.

Some time ago reference was made to the opening of the rooms of the Edinburgh Indian Association at 11, George Square, and now there is another event to be recorded which again shows the new state of affairs that has arisen in connexion with the coming of Indian students in large numbers to the universities of this country. It has been considered desirable to appoint an advisor for such of these students as are under the guardianship of the Indian Office; and Dr. James Miller, Lecturer in Pathology at the New School of Medicine, has been selected to carry out the duties involved. The appointment is the outcome of the visit paid to Edinburgh some time ago by Mr. C. E. Mallet, Secretary for Indian Students, London.

# Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

### WOMEN'S NATIONAL HEALTH ASSOCIATION.

THE Countess of Aberdeen, in presenting the report to the sixth annual meeting of the Women's National Health Association, held in Dublin last week, said that there were approximately 19,000 members and 151 branches. During the year the association had been incorporated, and had received gratifying recognition, being entrusted with a Government grant for carrying out the work of providing sanatorium accommodation for patients recommended under the Insurance Act. From the reports of the various branches it appeared that in between eighty and ninety schools throughout the country school meals were being given. Towards the cost of the establishment of dental school clinics a Government grant covering half the expense of equipment and maintenance had been obtained. The following resolution was adopted and referred to a subcommittee to consider the steps to be taken to give effect to it:

> That the existing law dealing with the disinfection, and, in proper cases, the destruction, of infected dwellings requires amendment in the direction of making its operation more rapid and certain, and that the Women's National Health Association desire to impress on the Irish Government the necessity of amendment and extension of the present law dealing with this matter.

The following resolution was passed unanimously:

> That this Council of the Women's National Health Association, representing all parts of Ireland, gathered at our half-yearly meeting in Dublin, record our conviction that there is urgent need for the better housing of the working classes in the cities and towns of our country. The present conditions are a menace to the health of the people and a reproach to our civilization. They are the means of spreading consumption and other diseases, of reducing the vigour and vitality of our people, and of raising the death-rate to undue proportions. We are informed that a suitable sanitary house cannot now be built to let at an economic rent which an urban labourer can afford to pay, and that, therefore, private enterprise cannot solve the problem. As the public health is a matter of imperial as well as of local importance, we respectfully request the Government to provide such assistance for urban authorities as will enable them to build comfortable sanitary houses for the working classes, to be let at a rent within their means. We further record our conviction that every batch of such houses built should be provided with a playground of ample dimensions for the children.

On April 17th the Sláinte Restaurant, which has been established under the auspices of the association, was opened by the Countess of Aberdeen; it is situated at the Ormonde Market, and is intended to supply the poor—especially mothers and children—with good wholesome food. A sixpenny lunch was provided, the menu consisting of mutton broth, cold beef, ham, corned beef, potatoes, rice pudding, cheese, butter, and bread; this, it was stated, was a fair sample of what could be obtained on any day of the week in the place.

### Typhoid Fever.

At the last meeting of the Limerick Corporation Public Health Committee a report was read from the urban superintendent of health, saying that since March 28th 17 cases of typhoid fever had occurred. The superintendent and a medical inspector of the Local Government Board had visited the Parks and Water Gates districts, and found them to be in an insanitary state. These two districts were responsible for 12 of the cases of typhoid.

Owing to an outbreak of typhoid fever in the town, the Newry Urban Council asked Professor W. J. Wilson, Queen's University, Belfast, to make an inspection of the water supply of the town and the Camlough Lake, the source of the supply. Professor Wilson reported that he had failed to discover the typhoid bacillus in the water; but from his inspection of the water and the gathering ground he considered that the supply was contaminated with sewage. He recommended the removal of the sources of pollution in the catchment area and the provision of a properly installed system of sand filters. The Council has appointed an engineer to report on the matter.

### Diphtheria in Blackrock.

Dr. Browne, Local Government Board inspector, informed the Blackrock Urban Council last week that the number of cases of diphtheria was 33 in the Blackrock Urban District and 7 in the adjoining districts. The disease was of a severe type, and had terminated fatally in 6 or 7 of those affected. It was ascertained on March 26th that all the families affected had a common milk supply. Inquiry elicited the fact that three of the dairyman's family suffered from diphtheria; one of these, a child aged 10 years, was ill about March 17th, but was not medically attended until March 26th, when other members of the family became ill and were seen by a doctor, who pronounced them suffering from diphtheria. The child mentioned visited the dairy daily during her illness. Certain defects at the dairy and at the dairyman's house were being remedied, the cattle had been put on pasture, and the sheds would not be occupied for the next six months. The dairy cattle were all examined by a veterinary surgeon, who pronounced them healthy. "The supervision," he stated, "over the milk supply is not adequate. The visits paid by the dairy inspector were not frequent enough. Each dairy premises should be visited twice or three times in each week, and particularly when the cattle are being milked. It is important that the health of the dairy cattle should be inquired into, and for this purpose a veterinary inspector should be appointed and report result of examinations to the Council." It was unanimously decided to adopt the recommendations contained in the report.

# England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

## LONDON.

### Metropolitan Asylums Board.

*Treatment of Resident Staff under the Insurance Act.*

The Metropolitan Asylums Board in January last (British Medical Journal, February 1st, p. 258) decided to arrange for a collective agreement with its employees for the provision of medical treatment, drugs, etc., under the Insurance Act, whereby the Board would receive the remuneration available for those services and the Board's medical officers would continue to treat the staff as heretofore. The Finance Committee on April 19th, however, reported to the Board that since January the circumstances had undergone a considerable change, and, after prolonged correspondence with the London Insurance Committee and the Commissioners, the Finance Committee was advised that the most effective arrangement would be for a representative medical officer of the Board—namely, the medical officer for general purposes—to enter into a formal agreement with the London Insurance Committee for the attendance and treatment of the insured staff resident in the London institutions only on a capitation basis, it being understood that the medical officer for general purposes would give such treatment by deputy through the medical superintendents and assistant medical officers, and would pay to the treasurer of the Board the fees for medical benefit when received from the Insurance Committee. The personal duties of the medical officer for general purposes would be merely nominal; the medical officers would continue to give medical attendance to the staff by the terms of their appointments; the additional work entailed upon them would be the keeping of certain records of sickness and the signing of such certificates as might be necessary. A proportion of the fees received from the Insurance Committee should be allocated to the assistant medical officers who would carry out these extra duties. The Committee proposed that similar arrangements be made for institutions outside the London area, at the same time remarking that modifications might be necessary in the case of institutions with a non-resident medical officer, who might or might not be already on the local panel.

The Board approved recommendations embodying these proposals.

*Appointment of Research Pathologist.*

The Hospitals Committee reported that, in regard to the proposed appointment of a research bacteriologist, it had considered the conditions which the Local Government Board attached to its approval—namely, that the officer should be designated "pathologist"; that the appointment should be annual in the first instance, and that at first the officer should not be required to devote his whole time to the Board's service (British Medical Journal, February 15th, p. 364). The Committee agreed with the Board as to making the appointment annual in the first instance; it thought, however, that the title of the officer should be "research pathologist," and it was strongly of opinion that a whole-time officer should be appointed. The Committee quoted in support the opinion of the Board's consultative bacteriological adviser, Professor G. Sims Woodhead, who wrote that the pathologist must be able to devote the whole of his time, thought, and energy to the solution of problems which had hitherto baffled many men giving their whole attention, though perhaps under less favourable conditions than those under which the proposed officer would work. It was decided to place these views before the Local Government Board.

*The Special Hospitals for Children.*

In view of representations that an unsuitable class of case was being admitted to Queen Mary's and the Park Hospitals for children, the Board, acting on a report by Dr. H. E. Cuff, medical officer for general purposes, decided to offer boards of guardians special inducements to send, in place of chronic cases, those coming under the following heads:

(*a*) Non-pulmonary tuberculosis in its various forms.
(*b*) Lateral curvature and other deformities, including patients requiring Swedish exercises.
(*c*) Paralysis.
(*d*) Diseases of bones and joints not due to tubercle.
(*e*) Those requiring any operation.

*A Shortage of Nurses.*

The announcement was made that owing to the difficulty of obtaining nurses there was a likelihood of the Board refusing to take any cases of measles and whooping-cough other than those from districts already included in the permissive Order recently issued by the Local Government Board.

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Professor Pavlov has been appointed director of the Institute of Experimental Medicine at St. Petersburg, a post which in the first instance was offered to Professor Metchnikoff.

# Correspondence.

## MALINGERING AND MEDICAL REFEREES.

SIR,—An interesting feature of the JOURNAL for April 19th is the inclusion within its pages of no fewer than three admirable articles dealing with the subject of malingering and its prevention. This question is of peculiar interest at the present time, for there is evidence that under the operation of the National Health Act the incidence of sickness, or rather the claims in respect of sickness, will prove to be considerably above the original estimates. It is well known that since the introduction of the Workmen's Compensation Acts the premiums of accident insurance companies have gradually increased to the extent of about 100 per cent., and it is only too probable that under the Insurance Act there will be a corresponding rise in the expenditure in respect of sickness claims.

In his convincing paper, Sir John Collie has made out a clear case for the employment of medical referees, and it is evident that the adoption of some plan such as that outlined by him will prove necessary at no distant date. The medical attendant is at an obvious disadvantage when suspecting the honesty of his patient, and he can hardly be expected to act upon his suspicions except in the clearest cases. It is not merely an advantage, but an absolute necessity, that he shall have access to some independent examiner, with whom to share the responsibility of dealing with this class of cases.

Financially, the employment of medical referees would, one may imagine, prove a good investment, for the expenditure involved would doubtless be a minor matter compared with the resulting saving of the funds.

It is to be hoped the articles to which I have referred, and the suggestions they contain, will receive the attention due to them.—I am, etc.,

London, S.W., April 21st. EDWIN SMITH.

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SIR,—I wish to enter a protest against the line of reasoning and policy expressed in your article on malingering in the JOURNAL for April 19th, in that portion of it dealing with certificates, commencing with the words "The fears frequently expressed" and finishing with "The profession has enough problems of its own without unduly burdening itself with difficulties which are not of its making, and which, after all, are the primary concern of the insured person."

The views there laid down are to my mind entirely erroneous, and their expression in an official way, with all the weight which such official expression carries, most unfortunate.

Curiously, in the same issue we have an article, very important and necessary at the present time, on "The Organization of the Profession," and it is there laid down that the policy of the Association is "the promotion of the medical and allied sciences, and the *maintenance* of the *honour* and interests of the medical profession." The whole of this article is an urgent appeal to the profession to stand firm together in the defence of these principles.

To return to our grievance. We are asked not to burden ourselves with difficulties not of our own making. This seems foolish. A man does not knowingly erect difficulties for himself and then proceed to demolish them, but all men have, whether they wish it or not, to contend with difficulties not of their own making. The medical profession in their daily round are doing very little else.

The National Insurance Act is not of our own making, but we most assuredly have to burden ourselves with the administration of the medical portion of it. It is not the policy of a young and what should be a virile organization to say, when faced with difficulties, "Never mind; let it go; we are not responsible for the difficulties." We are responsible for the "honour and interests" of our profession, and we must accept whatever may be the accompanying burdens of our responsibility.

The termination of the paragraph, "and which, after all, are the primary concern of the insured person," seems to suggest that this question of certification is in reality of very little concern to us. Medical men in some respects, perhaps, do not rise to the level of a similar class of cultured persons. Our lives are wide in human sympathies, but, obsessed by minutiae, we suffer from the defects of our own strength and are apt to be short-sighted and narrow, and in broad issues are continually stumbling over trivial details.

There has always been one quality, however, which has lifted the profession above the level of mediocrity—that is, our constant unswerving faithfulness to the needs and interests of our patients, and professional secrecy is an integral and very necessary part of the faithfulness.

There is a comparison between giving evidence in court and signing wholesale the conditions our patients are suffering from, which seems to reveal an extraordinary want of grasp of the principles of the question. It is held, and perhaps rightly, that where justice is in the balance it should take precedence over privilege.

But where can justice, either on behalf of our patients or the funds of the Act, require us to insert the nature of illness on our certificates? It can only demand it on the extraordinary assumption which the article in question seems almost to court—that the medical profession are not fit or able to determine when our patients are well enough to return to work, and that justice requires that we should hand over this prerogative to the approved societies, who, as the fit and proper bodies to determine this, would no doubt have tables of duration of incapacity from influenza, pneumonia, bronchitis, etc.

Even the conception of the Act, lacking in merit as it is, rises to greater heights than this. The idea of the Act is that persons shall receive early and continuous treatment until they are reasonably fit to follow their employment. And who can in justice ask to determine this? Without arrogance or conceit, but as a statement of bald fact, only the medical profession can decide, and it is only just to the insured, for whose benefit the funds are established, that we should decide. It is clear, therefore, that in withholding conditions on our certificates we are doing injustice to no one.

It is also stated in the article "that the insured makes application for the certificate, and that he must be assumed to be acquainted with conditions which the society to which he belongs has laid down." It is evident that the insured for their own sakes have had to go to some approved society, and not become deposit contributors, it is equally evident that in this wholesale herding they have not had time to consider, nor have they been asked or consulted as to their wishes with regard to rules. The implied assumption that the insured are willing and wishful to make a public display of their pathological conditions is absolutely and entirely disproved by practice. We have in this area very many cases where the approved societies have carried out their threat not to pay for four, five, and six weeks, and our patients have entirely agreed with our attitude. The only reason they have for asking the insertion of a condition is this threat of non-payment.

I have also resolutions from many organized trades in the district strongly supporting our action.

Ought not friendly and approved societies' rules to reflect the wishes of the majority of its members, and not only those of its management? The State guarantees for a certain payment certain benefits to the insured. It is a simple contract, and as binding on the insurer as on the insured. How can outside bodies, such as the approved societies who are neither the insurer nor the insured, but agents from one to the other, interpolate conditions which, if allowed, take away from the insured these benefits, he still having fulfilled his contract?

We have been asked in this area why we do not fill up the certificates? May I ask, on behalf of my colleagues and myself, why should we?

It was stated by the late Medical Secretary, amongst others, that the fight—shall I say, for the "honour and interest of our profession"?—would be keenest when the Act was in force. It is so, I think, because before we were only skirmishing, now we are in active conflict. Shall we not still justify ourselves by not shirking the burden of our responsibilities, and shall we not still ask the British Medical Association and its mouthpiece, the BRITISH MEDICAL JOURNAL, to act up to its tenets and belief?—I am, etc.,

G. H. SHAW,
Honorary Secretary, Leigh Division, and Local Medical
April 21st. Committee, Lancashire County Area 21.

## TRADE UNIONISM AND MEDICINE.

SIR,—In your last issue you very kindly printed a letter from myself in which two specific questions were asked. The first was whether the British Medical Association could become a trade union, and the second whether it could maintain a member of Parliament.

I did not expect a definite reply, because that could only have been in the negative. I, however, looked for and found a reply in the leading article on the organization of the profession. I do not know exactly what authority attaches to the editorial "we," but if I assume too much you will no doubt correct me.

As regards the first question, I note that it (the British Medical Association) is "fettered by many legal restrictions," and also, "we distrust these short cuts." The latter remark should be read in conjunction, I take it, with your references to "earnest but misguided persons" and "recent attempts, some of which have actually materialized, to form new organizations." From this I deduce that the British Medical Association cannot form a trade union, and that the editorial "we" does not even desire to do so.

I have suggested that without a trade union, supplementary to the British Medical Association, the profession is devoid of certain powers which it ought to possess. Let us take a concrete example. In a certain district a medical aid association is set up, and a medical man accepts service under this association on terms which the rest of the profession indignantly repudiate. The staff of the local hospital, or the local Division of the British Medical Association, say that they are not going to be used to break down the resistance of their fellow practitioners, and in consequence publish a resolution that they will not meet the medical officer of this association, nor, except in case of grave urgency, treat any of his patients at the hospital.

Now take the possibilities one step further. The people who have formed the medical aid association say that they will not be beaten by the doctors, and encourage their own doctor to bring an action against the hospital staff, or the local Division of the British Medical Association, accusing them of conspiracy to prevent him from disposing of his labour on whatever terms seem good to him and claiming damages. Is there any doubt than an action would lie, and is there any power in the British Medical Association to resist such an action, or to pay the damages?

But a trade union cannot be attacked on these grounds; it is just one of the most important immunities of that particular form of organization. I suggest that where any members of the British Medical Association felt it necessary to take such action they could protect themselves by belonging to a trade union, and that the latter body would be a very desirable supplement to the powers of the British Medical Association.

My second question dealt with the maintenance of a member of Parliament. I had to look rather further for my answer, but I think I found it in the SUPPLEMENT in the form of a recommendation of the Metropolitan Branch which will be discussed at Brighton. I quote the whole reference because I presume we may consider the suggestions of that Branch in this matter as more or less inspired. Am I not right in supposing that the plans for reorganization of the British Medical Association which recent events have necessitated are herein enshrined? It reads as follows:

"To appoint a Parliamentary Committee, with power to co-opt additional members, to maintain and increase the influence of the Association in the Houses of Parliament, to keep in touch with all legislation, existing or proposed, that affects the medical profession, and to perform all such duties as at present are entrusted to the Parliamentary Subcommittee of the Medico-Political Committee."

Now, frankly, I can only regard this as one of those compromises which are unfortunate for the profession, but inherent in the British Medical Association, owing to the legal restrictions which you deplore.

I suppose that 99 per cent. of any new legislation is decided on in unofficial conferences between the members of the two sides or in Committees of the House sitting "upstairs" or on the floor of the House—please excuse technicalities. In none of these can the new British Medical Association Committee take any part. The most it can do is to negotiate with members of Parliament who may be in a position to take part in any of the various phases of law-making. These will probably not be medical men, judging from the number of lay members of Parliament who have been in correspondence or connexion with the British Medical Association during this year. As a consequence they cannot be ready to answer the sudden clever question or statement of possible difficulties which the opposite side can launch at any moment. They must run outside and consult the Parliamentary Committee, if they happen to be there, and meanwhile the point goes against them by default. This is compromise. Either we need a member in the House or we do not. Either we need acknowledged representation at every stage of every discussion or we do not. But a Parliamentary Committee as at present suggested is nothing but a makeshift.

Look, however, to the possibilities of a trade union as a supplement to the British Medical Association. It can have a member of Parliament and it can ensure representation of the profession in the House at every stage. It can hand on to that member anything that the British Medical Association may wish to say which has not already been said by the union.

The British Medical Association is a fine organization, and the profession owes much to it. Your leading article says in effect: "Let it grow and include all the profession, and then we shall be all-powerful to protect our professional interests." The position of the British Medieal Association reminds me of that of Winchester Cathedral. Could any edifice have seemed more secure? But one day some one noticed that the edifice was cracking, and it was found that half of it was founded on water. It was slowly breaking its back. So may it be with the British Medical Association if it will not realize that its foundation is deficient. It is useless that it should grow; let it first look to the foundations on which it is based, and, if they are not wide enough, avail itself of the necessary reinforcement. I am not one of those who advocate knocking it all down and building on a new foundation, but I do think that, since the strengthening for its foundations is at hand, it would be folly to decline to make use of it.

Possibly I misunderstood the sense of "We distrust these short cuts" in your leading article, but, if that is not the case, I think some better reason should be given for this distrust than is yet forthcoming.

I must apologize for using so much space; may my "earnestness" be held responsible.—I am, etc.,

London, W., April 19th. GORDON R. WARD.

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SIR,—I write in support of Mr. Gordon R. Ward's argument in the correspondence column of our JOURNAL for April 19th, 1913. I consider his contention a just one, and as a member of the British Medical Association I wish to emphasize his claim for recognition.

No one will deny that our Association has done yeoman service in the past, and we are now profiting by its action; but surely we must admit that our machinery is somewhat old-fashioned and not quite up to date. True, we are making heroic attempts to improve the defects, but quite on the old methods, which in these days are somewhat antediluvian.

Now, Sir, I venture to hazard the opinion that in the issue of our JOURNAL of above date we have arrived at quite a unique position. In the leading article the claims of our Association are advocated, and considerable care and thought are evinced in setting forth the plea for continuing under the old régime. How exasperating to the ordinary general practitioner that has proved, I, amongst others who have had to go through it, can freely bear testimony. On the other hand, the claims of the National Medical Guild are tabulated in plain and unmistakable language.

The former recommends us to walk round the two sides of the triangle, as has been our wont in times gone by; the latter to pursue a course along the base. It must still be fresh in the memory of most of us—for we have all been to schools of various sorts during our chequered careers—that the square on the base of an isosceles triangle is less than the square on the two sides. Who will allege the methods of the National Medical Guild are not unquestionably on the square? Let us take the shortest cut.

Therefore, I say, it is the duty of our Association, the parent of this guild, to bless its child, the fruit of its travail through the fight with the Government over the National Insurance Act. One would have thought to see more enterprise evinced, and that we should be found only too ready to claim parentage, to have given this offshoot a house-warming and wished it God-speed.

I sincerely hope that this view of the situation will receive the careful and considered attention of our members at the Annual Representative Meeting at Brighton on July 18th, that they will accord the National Medical Guild their cordial support, and recommend every general practitioner to join.—I am, etc.,

London, N.E., April 22nd. A. W. MILLER.

## RHEUMATOID ARTHRITIS.

SIR,—Dr. Luff asks for my evidence that the proximate cause of rheumatoid arthritis is "a mild chronic acidosis, which extracts the lime salts from the fibrous tissue, muscles, nerves, cartilages, and bones." This query, which I should have thought quite unnecessary, may seem natural to a man who does not deal in proximate causes, but has half a score of causes for a simple phenomenon. Those who want proof of this latter statement will find it in his diffuse and inconclusive article on fibrositis in the BRITISH MEDICAL JOURNAL of April 12th, 1913. If Dr. Luff doubts the extraction of some of the lime salts from, say, the ends of the bones involved in the affected joints in cases of rheumatoid arthritis, he had better inspect some skiagrams of this disease; there are plenty about. There is no suspicion that these salts are carried away by an all-devouring phagocyte. The lime salts in the bones are well fixed, and it is here no question of calcium metabolism; even the thyroid secretion, with all its power in this direction, does not and cannot extract these salts, otherwise it would be a bad look-out for those suffering from exophthalmic goitre. The only substances that I know that will and do dissolve out these salts from the bones, cartilages, etc., are acids, or rather acid salts; as the blood is the vehicle, and all the acids in the blood—even carbonic acid and Dr. Luff's *bête noire*, uric acid—are in more or less close or loose combination (according to the manner in which you care to view the union) with some base or other. In using the term "acidosis," I wish to guard myself against such criticism as the late Professor Anderson bestowed on a young Glasgow chemist who found sulphuric acid and suboxide of copper in Scotch whisky. Anderson said you might as well expect to find a red-hot poker in a barrel of gunpowder.

With the rather free administration of phosphoric or citric acid, especially when the lime salts are cut out of the diet, it is a very easy matter to produce pains in the joints, neuralgia, muscular weakness, increase of the deep reflexes, and excessive excretion of lime. I have tried the experiment on myself, so I know all about it, but I have not done myself any harm; in fact, I think I have benefited, as I have succeeded in establishing a calcium equilibrium. Moreover, it rather sharpens your wits, and after a long course I can strongly recommend the treatment to Dr. Luff.

By a combination of decalcifying agents with respiratory exercises you can extract the lime salts from rigid costal cartilages. When the treatment gives rise to any albuminuria, I think you have carried the decalcifying process too far, and it should then be stopped. With the addition of some milk to the diet, and perhaps the administration of calcium iodide, the albuminuria quickly disappears.

Dr. Luff continues: "He further states that the extraction of the lime salts from the fibrous tissue causes it to swell, while the loss of the lime salts from the muscles causes them to waste—two apparently contradictory statements." Well, really! What next? Wherein does the contradiction lie? I merely stated a fact, and after all you can only explain a fact by stating other facts more or less well understood. I cannot therefore forecast whether Dr. Luff will comprehend my explanation or not, but I hope others will not require it. The presence of soluble calcium salts prevents the free imbibition of fluids by fibrous tissue or laminaria tents. The absence of lime cannot cause them to swell, but the removal of the *inhibition* allows them to do so, always provided there is fluid present to imbibe, and in these cases there is plenty of blood serum about. This imbibition increases the watery constituents of the fibrous tissue and causes it to swell, but it does not primarily cause any hypertrophy. It admits, however, of increased vascularity and subsequent proliferation of the fibrous tissue elements. There is no obligation on muscular tissue to take on the same rôle in its relations to the calcium salts. The presence of calcium is absolutely essential for muscular contraction, and fortunately in these cases it is never absent, otherwise the muscle would cease to functionate, and the patient to exist. Its diminution increases the irritability of the muscle, but lessens the efficiency of its contraction; the nutrition fails, and the muscle wastes. There may be, and often is, effusion into the fibrous sheath of the muscle. The varying amount of lime in the cardiac muscle, and the quantity of free calcium ions in the circulation have much to do with the irritability, tone, and contractility of the heart. I have recorded a case where the amount of lime in a gram of the left ventricle was double that in a gram of the right ventricle.

He takes strong exception to my statement about the uselessness of potassium iodide, and guaiacol, and winds up: "I have employed guaiacol carbonate and potassium iodide in *some thousands of cases*, and I am convinced that this combination is capable *in the great majority of cases of arresting the disease*, and so of preventing the frightful suffering connected with movements of the affected joints, a condition which is so common in cases of unrelieved rheumatoid arthritis." (The italics are mine.) Marvellous! Some thousands of cases treated with guaiacol carbonate and potassium iodide, and I presume many more thousands treated with other drugs before he arrived at this panacea. I am really sorry for these patients, as they must have swallowed hundreds of thousands of doses of this nauseous and, in my opinion, useless mixture. In order to have arrived at his very definite conclusion he must have had these patients under observation for a long time. Some thousands of cases of rheumatoid arthritis and not one cure, but the great majority *arrested*, not by a policeman, but by guaiacol carbonate and potassium iodide. *Mirabile dictu*. That the disease may have been *arrested* by the removal of the cause while the patient was swallowing these drugs I am quite ready to admit, but that the mixture ever *arrested* the disease since Adam was a little boy I do not believe. What evidence have we that these drugs ever *arrested* the disease, except the *ipse dixit* of Dr. Luff? The patients must swallow something, but surely he does not expect me to swallow his statement holus-bolus.

I do not see how the problem is going to be solved by Dr. Luff's mixture. In the name of all that is holy, just, and true, how is potassium iodide going to *arrest* rheumatoid arthritis? It may stimulate the thyroid gland and thus increase calcium metabolism, which from my point of view is injurious. It may spoil the patient's appetite, which is also deleterious. Guaiacol carbonate as an antipyretic is not required in this disease, and as an antiseptic it is a very indifferent substance loudly vaunted by manufacturing chemists. If it were shown that rheumatoid arthritis is microbic in origin, any little germ which guaiacol carbonate would kill might be safely neglected. It has also been largely used in phthisis, but it has sickened the patients rather than the tubercle bacilli. These *post hoc, propter hoc* arguments of Dr. Luff won't wash. One advantage of his mixture is that it is cheaper than his treatment of fibrositis by a change of residence and a damp-proof house. It would almost seem as if the versatile Judge Parry had been consulting Dr. Luff, as I find in his article in to-day's *Sunday Chronicle* that he refers to the custom of Hamlet's father to sleep of an afternoon on the damp grass in his orchard, and says that in the natural order of things this must have ended in rheumatoid arthritis. He kindly refers to what he is pleased to call my "iconoclastic attitude towards former workers and writers on this subject," and in appreciation of his kindness I hope he will afford me another opportunity of pulverizing a few more of his treasured idols. I must also thank him for this opportunity of expanding my address.—I am, etc.,

Liverpool, April 20th. JAMES BARR.

SIR,—I waited a week for another issue of the JOURNAL, thinking that part of Dr. Luff's and Sir James Barr's addresses must have been left out, especially the parts dealing with treatment, but in this week's issue (April 19th) I see no notice to this effect. The lectures, as printed in the issue of April 12th, contain nothing beyond what we find in all the textbooks on medicine that have been issued for the last thirty years. The newer and more efficacious treatment is conspicuous only by its absence. Are we to believe that neither of the above authors has ever seen the wonderful improvement that follows in some cases of rheumatoid arthritis after the usual seaweed bath, given at a temperature of something over 104° F. (this bath consists of boiled seaweed with a strong alkali), when followed by the inunction of a suitable ointment into the spine and stiff joints? Strange as it may seem we are also forced to believe that neither of the writers is familiar with the results that usually follow applications of the thermo-penetrating current to the spine, and the affected parts.

So far as I can learn, about one-third of the practitioners in Britain are at present treating this disease with serums, with results much superior to what were obtained by the ancient treatment recommended by Dr. Luff and Sir James Barr. There is still a great diversity in the profession as to the efficacy of the various serums, as also in the method of preparing them; as a rule, practitioners do not rely solely on the serums, but use them as valuable aid to other treatment. I see no mention of a single serum, the method of preparing it, or the results of its use in either lecture. Are we to believe that neither of the writers has any experience of the antirheumatic serums now in common use? "Arsenic, potassium iodide, guaiacol, etc.," may be worse than useless if they are given without any selection of cases. The same may be said of all the other treatment advised in both lectures. I have only glanced cursorily through them, but I have failed to notice any indications as to what treatment should be adopted in individual cases. Each author seems to have treated all his cases of fibrositis somewhat after the manner of the sixpenny doctor, who is supposed to have his pharmacopœia in about half a dozen barrels, and every case that appears gets a bottle from one of the taps. In Sir James Barr's case the barrel contains mostly lime. In Dr. Luff's case a mixture of potassium iodide, arsenic, aspirin, guaiacol, nux vomica, and a little syrup of the glycerophosphate. I see no mention in either lecture of the best counter-irritant to be applied to the spine and painful parts; how to determine which ointment should be used in each case; when one has learnt this he gets results of a most encouraging character, far superior to any that I have obtained by ionization—a method that I have occasionally used during the last twenty years, but have failed to notice more marked improvement than I have seen to follow the same doses of galvanism when the electrodes have been soaked in warm water.—I am, etc.,

Llandudno, April 19th. JAMES CRAIG.

## THE WATER CURE FOR HYDROPHOBIA.

SIR,—It will be interesting to supplement the record of the use of water in the old time before us in the treatment of hydrophobia, given in the JOURNAL of April 5th, p. 721, by an article upon the subject from the pen of the renowned Dr. Haygarth, of Chester (of whom a full account was given lately in your Nova et Vetera), which is to be found in the form of a communication from Dr. Haygarth respecting hydrophobia, made to Dr. Withering. This paper was published in 1822 in the first of the two volumes of *The Miscellaneous Tracts* of the late William Withering, M.D., F.R.S., from the pen of Dr. Withering's son. It will be remembered that Dr. Withering was a distinguished physician in Birmingham, where his memory is especially cherished as of a patron saint in therapeutics, where he was a physician to the great General Hospital, and where he wrote *The Botanical Arrangement of British Plants*, in four volumes, and much else, and where he wrote and published in 1785 his immortal book, *An Account of the Foxglove and some of its Medical Uses: with Practical Remarks on Dropsy and other Diseases.* Dr. Haygarth was an intimate correspondent of Withering, and this paper of his upon the treatment of some of the effects of the bite of a mad dog is of the greatest therapeutic interest. Perhaps it has been lost sight of by being included in a posthumous volume of medical tracts and memoir.

Dr. Haygarth wrote to his friend: "Near Wrexham, in North Wales, three men died of canine madness in October and November, 1788. These melancholy cases spread a general alarm. But it ought to give great comfort and satisfaction to any one who may be bit to know that there is a safe, easy, and effectual method of preventing infection, which can seldom give pain or require skill, and is in the power of every person to employ. It is universally allowed by physicians that the spittle of a mad animal, infused into a wound, is the *only* cause, hitherto known, that can communicate canine madness to the human body. This poison does no immediate mischief, but is slowly absorbed into the blood, and sufficient opportunity is given to remove it before any danger can arise. Whenever any one is bit, the plain and obvious means of preventing future injury is, first, to wipe off the spittle with a dry cloth, and then to wash the wound with cold water—not slightly and superficially, but abundantly—and with the most persevering attention; in bad cases, for several hours. After a plentiful affusion of cold water, warm water may be employed with safety and advantage; a continued stream of it, poured from the spout of a tea-pot or tea-kettle, held up at a considerable distance, is peculiarly well adapted to the purpose. After the bite has been carefully washed, colour it with spittle tinged by ink, etc. When some hours have elapsed wash out the stain. A visible proof may thus be obtained how soon and perfectly water can cleanse the wound from spittle. As a proof that slight washing of the wound is not sufficient to cleanse it effectually from the poison, we may mention that in some cases, after inoculation for the small-pox, the poisonous matter has been attempted to be washed out of the wound by persons who wished to prevent its effects, yet the inoculated small-pox appeared at its proper period.

"These unsuccessful attempts were performed secretly, hastily, and timidly by a female hand; but, in a case where the inoculated incisions were probably washed with greater care, infection was prevented. They teach us the importance of patient perseverance in washing away the poison, but they need not abate our confidence that such perseverance will certainly be successful. The ablution should be accomplished with great diligence and without delay, and may be performed by the patient or any assistant. However, as the apprehension of this dreadful disorder always excites the greatest anxiety, a surgeon's advice and assistance ought to be obtained as soon as possible in all cases where the skin is injured. He will execute these directions most dexterously and completely. In a bad wound the poison may be conveyed deep into the flesh by long teeth or by lacerations. In such circumstances he will open and wash every suspicious place, and whenever any uncertainty can remain that may occasion future solicitude, he should cup and syringe the wound. By this method of purification it cannot be doubted that every particle of poison, and consequently that every cause of danger, may be effectually removed. If the bite have been neglected till inflammation has commenced, it should be washed, syringed, and cupped (after the inflamed surface has been shaved off) with double diligence."—I am, etc.,

JAMES SAWYER, M.D., F.R.C.P.

Birmingham, April 7th.

## BOVINE AND HUMAN TUBERCULOSIS.

SIR,—Dr. J. Preston Maxwell has written stating that in the part of China in which he resides—as in districts more to the north—tuberculosis, including tuberculosis of the joints and bones, is common. The importance of this observation rests upon the fact that only where China borders on Thibet is cow's milk used as a food. Elsewhere the drinking of milk is regarded by the Chinese with a similar abhorrence to that with which we regard their habit of eating dogs and cats.

It must be obvious, therefore, that tuberculous disease of the joints and bones may be prevalent where there is no risk of infection from the cow. It is necessary to reconcile this fact with results of laboratory experiments such

as those recorded by Dr. John Fraser (BRITISH MEDICAL JOURNAL of April 12th). Dr. Fraser does not deny that joints and bones may be attacked by the human bacillus, but contends that under the age of 3 years the disease in these parts of the body is generally of bovine origin. His conclusion rests upon the belief that the tests given as to differences between the bovine and human bacilli are absolutely reliable. The greatest confidence is placed upon the difference of virulence of the bovine and human bacillus towards the rabbit. The bovine bacillus is said to kill the rabbit comparatively quickly, while the human bacillus has little effect. Apparently tubercle bacilli obtained from children under the age of 3 years much more often than not killed rabbits quickly, and on this result mainly it is concluded that the tubercle bacillus found in young children is generally bovine.

Such a conclusion ignores what may be described as the peculiarities of the human body as a culture medium. It assumes that the human body may be considered to act in a uniform way towards bovine and human bacilli at all ages, and that the only differences to be noted are those observed as the result of experiments outside the body. That is to say, although we know the human body in early life to be, in the majority of instances, a much better culture medium for the bacillus than in later life, for laboratory purposes a bacillus derived from the human body when outside the body is assumed to act in the same way whether derived from a body favourable or comparatively unfavourable to its growth. Such an assumption seems open to question. Can we assert that the tubercle bacillus during growth in the body at an early age does not acquire certain qualities in consequence of the character of the medium in which it has grown? We want to know whether tubercle bacilli obtained from babies, such as those in China, who cannot have been infected with bovine bacilli, will not kill rabbits as readily as bacilli obtained from babies in Edinburgh.

However that may be, if bovine and human bacilli possess such marked differences in virulence that one will kill a rabbit and another will not, then in a sensitive medium, such as is provided by the tissues of a baby, we ought to expect some marked differences in the behaviour of the two types of bacilli.—I am, etc.,

Sidcup, April 12th. THEODORE FISHER.

## SYPHILIS AND CANCER OF THE TONGUE.

SIR,—In your issue of the 12th inst. there is an interesting communication from Dr. Arnold Renshaw, in which he refers to a lecture of mine recently published in the BRITISH MEDICAL JOURNAL.

My point is that, as a result of investigation of cases of tongue cancer which have come under my observation, 80 per cent. have given a previous history of syphilis, and in the majority of these cases there have been marked syphilitic lesions of the tongue present.

One would therefore conclude that in the greater number of these cases a positive Wassermann reaction would be found, and such in fact has been our experience at the Cancer Hospital. I have referred the matter in Dr. Renshaw's letter to Dr. Archibald Leitch, the pathologist to the Cancer Hospital, and he writes:

> In the last seven cases of tongue lesions which were operated on and which were clinically and histologically malignant, five gave a positive reaction. The method employed was that of Browning and MacKenzie, which is the most critical of all the methods used.
>
> Every serum was tested separately with two different complements, not less than eighteen and not more than twenty-four hours old. The advantage of this duplicating of the complements was evidenced by the fact that one particular complement used on two serums tested on the same day was supersensitive, whilst the other complement was not.

I may add that I regard a positive Wassermann reaction as indicative of syphilis; but it does not exclude cancer.—I am, etc.,

London, April 22nd. CHARLES RYALL.

SIR,—With regard to the interesting relationship between syphilis and cancer of the tongue on which you have recently thrown a good deal of light, it may be of interest to recall that Mr. Clement Lucas used to teach us that the three great causes were the three S's—syphilis, smoking, and salivation. In his opinion the stomatitis of greater or less degree resulting from the prolonged use of mercury—needful though it was—was a factor which could not be neglected when summing up the various forces at work.—I am, etc.,

Southsea, April 18th. M. ASTON KEY.

## TUBERCULOSIS OFFICERS, SCHOOL MEDICAL OFFICERS, AND THE MEDICAL OFFICERS OF HEALTH (SUPERANNUATION) BILL.

SIR,—From all parts of England and from the North of Scotland replies to my letter in your issue of April 12th have reached me. Every one of them strongly urges the necessity of including in the bill school medical inspectors and tuberculosis officers. Widespread discontent with the remuneration at present offered, especially to school medical inspectors, is almost invariably shown in these replies. Those who have written have also brought the bill to the notice of their member of Parliament.

To the following gentlemen I have sent the appended letter: Sir Philip Magnus (presenter of the bill), Sir Henry Craik, Mr. Lough, Mr. Charles Bathurst, Sir Henry Norman, Mr. Godfrey Locker-Lampson, and Mr. Glyn-Jones, supporters of the bill.

A copy has also been sent to the Secretary of the Society of Medical Officers of Health, and to the Secretary of the British Medical Association, and to Dr. Addison.

Dear Sir,—I have the honour to request your attention to, and consideration of, the following amendment, which I hope you will see has a strong claim for insertion in the bill during the Committee stage:

*Amendment.*—That the words "medical officers of health" in the title and throughout the bill include "school medical inspectors and tuberculosis officers."

*Reasons.*—1. Medical inspectors and tuberculosis officers have salaries ranging on the average from a fourth to a half of that paid to medical officers of health.

2. Being whole-time officers, they are precluded from augmenting their salaries by engaging in other work.

3. About three out of every four medical inspectors and tuberculosis officers will not receive promotion from their present position, because their numbers are so much greater than those of medical officers of health.

4. They form the junior branches of the Public Health Service.

5. All the arguments adduced in the bill in favour of public health officers apply in the case of medical inspectors and tuberculosis officers.

—I am, etc.,

ALEXANDER GRAHAM,
School Medical Inspector, West Ham, E.

London, E., April 21st.

## THE NEGLECT OF VACCINATION.

SIR,—I have to thank Dr. Killick Millard for the lucid statement of his case in his letter of April 7th. I admit that efficient infantile vaccination is by itself insufficient to check the spread of imported small-pox and to make small-pox hospitals unnecessary. In the absence of re-vaccination, and with the prospect of vaccination becoming optional and of emergency vaccination (limited by lymph supply and time and lay persuadability) being carried out, we must hope that the community may have less small-pox than can be reasonably foreboded.—I am, etc.,

Brent Knoll, April 14th. J. W. PAPILLON, M.R.C.S.

## THE "MILWARD FUND."

SIR,—A fund under the above title has been started in Cardiff to assist the widow and three young children of the late Dr. Courtenay Milward, who are left practically without means.

Reference to the manner of Dr. Milward's death is made in your obituary columns, and the members of the profession in Cardiff and district feel that it is their duty to do all that they can for those he has left behind. The fund is open to all, medical and lay, and donations will be gratefully received by the undersigned.—We are, etc.,

WILLIAM SHEEN,
2, St. Andrew's Crescent, Cardiff,
Honorary Treasurer.

A. L. THORNLEY,
18, Windsor Place, Cardiff,
Honorary Secretary.

# The Services.

## ROYAL NAVAL MEDICAL SERVICE.

Surgeon-General Sir James Porter, K.C.B., has been awarded the Good Service Pension of £100 per annum vacant by the death of Inspector-General of Hospitals and Fleets John Fisher.

*Flying Pay.*

By an Order in Council, published in the *London Gazette* of April 18th, the following arrangements have been sanctioned: (1) Medical officers who obtain the certificates of the Royal Aero Club at their own expense to be eligible for gratuity of £75, provided the permission of the Admiralty to undergo such training has first been obtained. (2) Medical officers trained at the Central Flying School, or at a naval flying school, to be paid half the authorized rate of flying pay while under instruction. (3) After attaining such standard of proficiency as may be laid down, medical officers to be paid the authorized rate of flying pay (*a*) for any days on which they may be required to fly on duty, (*b*) for days on which it may be necessary for them to carry out practice flights not exceeding two days per month.

## THE INDIAN MEDICAL SERVICE.

The *Gazette of India* of February 15th, 1913, notifies that Colonel G. W. P. Dennys, Inspector-General of Hospitals in the Central Provinces, is granted leave for eight months, and that Lieutenant-Colonel H. E. Banatvala acts in his place. This announcement is of interest as being the promotion of an Indian member of the I.M.S. to officiate in the administrative grade and as Principal Medical Officer of an Indian province. No Indian has yet attained permanently to such a post, but one, Lieutenant-Colonel E. P. Frenchman, C.I.E., acted in the same office, in Burma, in 1909.

It was a strict rule of the East India Company that only men of pure European extraction should be appointed to the I.M.S. The India Act of 1853, Acts xvi and xvii Vict., cap. 95, introduced competitive examination, open to all natural-born subjects of Her Majesty, for admission to the service. The first examination was held in January, 1855, when the list was headed by S. C. G, Chuckerbutty, a Bengali Christian, who had been one of the Indian students sent to study in England, under the guardianship of Dr. H. H. Goodeve, ten years before. Chuckerbutty took the diploma of M.R.C.S. in 1848, the degree of M.D.Lond. in 1849. From 1850 to 1854 he served in the Uncovenanted Medical Service. Of the five students sent home with Goodeve, Chuckerbutty was the only one who was young enough, in 1855, to enter for the examination for the I.M.S.

Since 1855 over 100 men with pure Indian names have gained admission to the I.M.S., of whom nearly forty-nine have joined on the General List instituted in 1896. Some twenty others, with Portuguese or Armenian surnames, have also entered; as well as a considerable number of Anglo-Indians of mixed blood, who, of course, cannot be identified by their surnames.

It is not perhaps surprising that no Indian has yet risen permanently to the administrative rank. More than half of the Indians admitted are still too junior for any question of their promotion to have arisen. Of the seniors, comparatively few, only some ten in all, have put in the full thirty years' service necessary for promotion or full pension. Many have taken the first opportunity of retiring as soon as they had earned the first pension. Several have held appointments of importance with credit and success. Chuckerbutty became professor of materia medica in the Calcutta Medical College, and second physician of the College Hospital, in 1864, and held the post till his death, when on leave, in London, on September 29th, 1874. Another Indian, R. C. Chandra, was his successor in these offices, and held them for nearly twenty years, till his retirement on October 16th, 1891. Lieutenant-Colonel Frenchman for several years held the Inspector Generalship of Prisons in Burma. Another Indian officer held that post in the province of Eastern Bengal and Assam, and now holds it in the new province of Bihar and Orissa. Ten have risen to the rank of brigade surgeon, or its modern equivalent, lieutenant-colonel, on the selected list.

Lieutenant-Colonel Hormusjee Eduljee Banatvala is a Parsi by birth. He was born on October 20th, 1859, so has a year and a half yet to run before attaining the age for compulsory retirement. He was educated at the Grant Medical College, Bombay, where he took the L.M. and S. in 1881, and at St. Bartholomew's Hospital, taking the M.R.C.S., L.R.C.P.Lond., and L.S.A. in 1882. He entered the Bombay Medical Service as surgeon on April 1st, 1884, passing third, and a few months later was transferred to Bengal, became surgeon-major on April 1st, 1896, lieutenant-colonel on April 1st, 1904, and was placed on the selected list on January 1st, 1910. For the first nine years he remained in military employ, serving in Burma from 1886 to 1889, when he took part in the operations of the First Brigade and in the pursuit of Hla Oo; he received the medal with two clasps. He also served in the Lushai expedition of 1892. For the last twenty years he has been in civil employ in the Central Provinces, where he now becomes Acting Inspector General of Hospitals.

## GLASGOW UNITS, ROYAL ARMY MEDICAL CORPS.

The annual gathering and presentation of prizes in connexion with the Glasgow units of the Royal Army Medical Corps (Territorial) took place in the new head quarters at Yorkhill Parade. Lieutenant-Colonel A. D. Moffat, M.D., Commanding the 2nd Lowland Field Ambulance, presided, and there were also present Colonel D. J. Mackintosh, M.B., M.V.O., Assistant Director of Medical Services, Lowland Division; Lieutenant-Colonel H. Wright Thomson, Lowland Mounted Brigade Field Ambulance; Lieutenant-Colonel George H. Edington, M.D., 1st Lowland Field Ambulance; Lieutenant-Colonel A. G. Hay, M.D., 3rd Scottish Hospital; Colonel Alexander Napier, M.D., 4th Scottish Hospital, and others. The chairman said that the aggregate authorized strength of the units was 32 officers and 730 other ranks, and that there were serving on February 28th 29 officers and 743 other ranks. Since then the shortage of officers had been made good, and he congratulated those present on being members of a highly prosperous and admirably equipped corps. So far as the crisis in the Territorial Force was concerned they had no knowledge of it in the Glasgow units of the Royal Army Medical Corps. Colonel Mackintosh presented the prizes gained during the past season, and congratulated Colonel Moffat on the excellent report. He was glad to learn that a large number of men proposed to re-engage for a further period, which showed their patriotism and their loyalty to the Territorial Force.

# Universities and Colleges.

## UNIVERSITY OF LONDON.

*Graham Scholarship in Pathology.*

The late Dr. Charles Graham, Professor, and later Emeritus Professor of Chemical Technology in University College, by his will bequeathed the residue of his estate to the University of London, to found at the School of Advanced Medical Studies of University College a Charles Graham Medical Research Fund. The Senate was empowered to establish a Graham scholarship in pathology of not more than £200 a year to enable a young man to continue his pathological researches, while at the same time he gives his services to the school as a teacher under the Director of Research appointed under the Graham bequest. The Senate now invites applications for the Graham scholarship in pathology, which is of the value of £200 per annum for two years. Applications stating the research upon which the applicant proposes to work, and marked "Graham Scholarship," must be sent to the Principal, University of London, South Kensington, S.W., by May 31st, accompanied by the names of not more than three references, one at least of which should be the name of a professor, lecturer, or teacher of the university or college in which the candidate has conducted his studies in pathology.

## CONJOINT BOARD IN ENGLAND.

The following candidates have been approved at the examination indicated:

First College (*Part IV, Practical Pharmacy*).—C. H. B. Avarne, A. J. Bado, O. Baier, P. W. Barnden, C. A. Bernard, J. W. Bouwer, H. H. Castle, A. J. Chillingworth, G. D. Compston, D. T. Corke, H. L. Cronk, F. W. Crook, J. D. L. Currie, G. Dayal, S. B. Depree, E. Donaldson, K. M. K. Duff, P. Green, H. S. Groves, H. Gwynne-Jones, W. T. Gwynne-Jones, A. R. Hacker, T. W. Hancock, T. C. Higgins, G. G. B. Holroyde, T. R. Kenworthy, G. H. S. Letchworth, A. R. Muir, W. E. Neale, F. A. M. Nelson, D. W. Pailthorpe, A. B. Preston, F. N. Reynolds, A. N. Rushworth, T. W. Sheldon, A. H. Taymour, G. O'N. Waddington, L. M. Waldron, A. S. Westmorland, G. W. Wheldon, L. H. Woods.

## CONJOINT BOARD IN SCOTLAND.

The following candidates have been approved at the examinations indicated:

First College.—W. Brown, N. S. Bruce, R. P. Crawford, H. G. Fitz-Maurice, J. A. Murray.

Second College.—J. Crawford, A. Evans, D. A. Imrie, R. MacGregor, J. Y. M'Lean, J. M. A. M'Vey, G. L. Pillans, H. Shaw, W. Templeton, F. W. Thompson, R. L. Wright.

Third College.—J. W. Cowie, J. R. C. Gordon, W. L. Paterson.

Final.—S. Cochrane, A. M. Robertson, W. N. P. Williams, Madeline MacWilliam, W. E. Cruickshank, M. J. Ahern, R. Craig, M. B. Mahlangeni, J. F. Bourke, J. R. Gwynne, G. L. Clark, S. Swaminathan, R. S. Miller, U. R. Hattiangadi.

# Obituary.

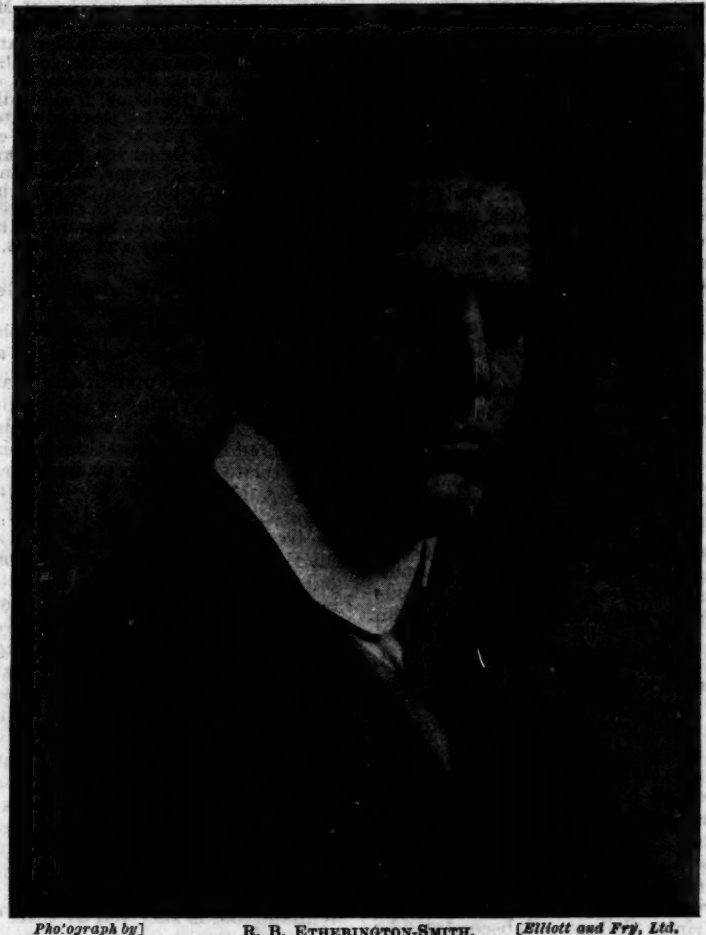
## RAYMOND BROADLEY ETHERINGTON-SMITH,

M.A., M.B.CANTAB., F.R.C.S.ENG.,

WARDEN OF THE COLLEGE OF ST. BARTHOLOMEW'S HOSPITAL.

THE toll paid to death by the medical profession during the past few months has been exceptionally heavy, but no loss is likely to be more generally deplored than that arising from the death, on April 19th, of Mr. Raymond Broadley Etherington-Smith in his 36th year.

St. Bartholomew's Hospital, medical students, and rowing men of the present and of the future are equal sufferers. The hospital has lost a member of its staff who did credit, and was certain to do constantly increasing credit, to its repute; the students have lost a teacher whom they could not fail to admire, both as a man and as a source of information; and Surgery has lost an exponent who, apart from his professional capacities, was possessed of such personal charm that he was bound to win it friends. Etherington-Smith, in short, was not a man whom any profession, or, indeed, any nation, could afford to see snatched away from it in the very prime of his life without the deepest regret, and a kind of wonder as to what great purpose of Providence was served thereby.



*Photograph by]* R. B. ETHERINGTON-SMITH. *[Elliott and Fry, Ltd.*

He was born in 1877, and was the second son of Mr. J. R. Etherington-Smith, Recorder of Derby and a Bencher of the Inner Temple; his mother was a daughter of Sir Thomas Pears, K.C.B. Educated, like his father, at Repton, Etherington-Smith entered Trinity College, Cambridge, in 1895, and graduated in Arts and Medicine in 1903. He received the later part of his professional education at St. Bartholomew's Hospital, which he entered as a university student, and was admitted a Fellow of the Royal College of Surgeons of England on the same day that he received his membership in June, 1907.

At the hospital he made his way very rapidly, and held the posts successively of surgical registrar, demonstrator of surgical morbid anatomy, assistant surgeon, and warden of the college. He was also assistant surgeon at the West London Hospital. In all these positions he exerted himself to the full limit of his strength, and the end of a long winter found him unable to resist an attack of pneumococcal peritonitis, which seized him suddenly on the evening of April 16th, and ended in his death on April 19th, in spite of the most devoted surgical and nursing attention. Just before his illness he had had occasion to operate on a case of gangrene of the lung, and there is reason to believe that his death adds another to the long list of those directly due to the performance by medical men of obviously dangerous duties.

Etherington-Smith was already a man of mark when he entered the medical profession some ten years ago. Quite early in his career at Cambridge he attained a reputation on the river, and subsequently he became one of the best-known English oarsmen and most successful coaches of his day. That day, too, lasted unusually long, for it began in 1895 and ended only in 1908; meantime he had stroked many London Rowing Club, Leander, and Cambridge crews to victory, and in addition had carried off the Diamond prize for sculling on more than one occasion. His crowning performance was the captaincy of the English crew which, despite unfavourable presages, won the Olympic regatta of 1908.

Rowing, however, did not exhaust his energies. He entered fully into every side of the life of his hospital, and though the amenities of professional life obliged him of late years to use a motor car, he was also an ardent motor cyclist. Driving in his car, commonly with a friend, he was a familiar sight in the streets of London on his way to the chief athletic events of the year.

As a surgeon Etherington-Smith was, of course, only at the beginning of his career, but he had already made considerable progress in several special departments of his science, and had also attained some degree of surgical repute among the general public. This may have been partly due to his connexion with athletic circles, but his own personal qualities and professional skill were of such a kind that, had he lived, he was bound sooner or later to have come to the front as one of the surgeons of the day.

No man unpossessed of physique and character could have attained and kept for so long a period the position of Etherington-Smith as an oarsman, and both were obvious almost at first sight. Not only was he a tall, decidedly handsome, man, but there was a quality in his face which was a true index of his character. Full of grit and intelligence, absolutely loyal to his friends, he was a clean living man who could not fail to attract all those who came into contact with him. Even-tempered, courteous in manner and quiet in address, he held decided opinions based upon assured knowledge, and expressed them clearly and pleasantly. In professional subjects his opinion was always sound, for it was based upon a broad platform of accumulated facts.

His influence on his contemporaries and juniors was always of the very best kind. His contemporaries were his devoted friends, and their familiar talk of "Ethel Smith" was invariably and wholly to his credit, whether it was in connexion with school subjects or the towing path; and junior men reverenced him with the affection and awe commonly felt by athletic aspirants for one who has outshone all others in his own department. He was therefore ideally fitted for what may be regarded as the more important of the three posts which he was filling at the time of his death—that of Warden of the college of St. Bartholomew's Hospital. It brought him into intimate contact with medical students fresh from home and school, and he maintained for the post the prestige which the office acquired many years ago under the sway of Sir James Paget.

Though Etherington-Smith's death is deplorable, he did not live in vain, for he impressed the genius of his character not only on his own friends but on men of several younger generations, who will live with higher ideals owing to their association with him. Etherington-Smith was unmarried.

The first part of the funeral service on April 23rd was held in the Priory Church of St. Bartholomew the Great, which was filled to overflowing. The coffin was carried from the hospital to the church by those members of the hospital staff who had been most closely associated with him as colleagues and house-surgeons. It was draped with the Cambridge University Boat Club and the Leander Club flags. The service was conducted by the Rev. H. S. Close, the Hospitaller. The committal service was carried out in the Putney Vale cemetery amongst a wealth of flowers and the first verdure of spring, the coffin being lowered into the grave by six Cambridge Blues who had shared with him many a hard-won race.

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## THOMAS HAYES, M.D., J.P.,

RATHKEALE, CO. LIMERICK.

DR. THOMAS HAYES, of Rathkeale, co. Limerick, passed away at his residence in that town on April 3rd in the 81st year of his age. At the time of his death he still held several appointments, and, despite his advanced age, was by no means a titular occupant thereof. Only some four months before his death he performed a successful operation on a case of strangulated femoral hernia in a woman 80 years of age. Even the illness which, after lasting three months, terminated his life, left his mental faculties unimpaired, and throughout its course he used to discuss with his medical attendants (two of his own sons) the different phases of the diabetes, complicated by gangrene, from which he was suffering.

An admirable example of a medical man of the old school, Dr. Thomas Hayes had been at work in the province of Munster for over fifty years, his practice extending over a very wide area of Munster. He performed its various duties, which included much surgery and consultation work, in such fashion as to gain the full confidence of his patients and the affection of a large proportion of the inhabitants of the province. Indeed, there were many who regarded him as a true Irish prototype of the Scottish country surgeon rendered so famous by the novelist Ian Maclaren under the name of Weelum Maclure.

He was born in Fairy Street House, Athea, in August, 1832, being one of a family of eight children orphaned when all were still quite young. It thus came about that he received his early general education at the local national school—a fact of much interest, in view of the high degree of culture and knowledge of classical and other languages which he constantly evidenced in adult life. On reaching the age of 20 he joined the medical side of Trinity College and had a successful career there, being appointed a prosector and winning prizes in sundry class subjects; among them was botany, in which he snatched the prize from a student who afterwards became a distinguished professor of the same subject in Trinity College. Subsequently he spent several years between Edinburgh and London, completing his student life by becoming M.D.Edin. and M.R.C.S.Eng. in 1856.

His first intention was to join the Indian Medical Service, but eventally he determined on general practice in Ireland. After working some years in the Shanagolden district of Munster, he became medical officer to the Rathkeale workhouse and dispensary, and settled in Rathkeale, where he continued to reside during the rest of his life, meantime taking up a good many other appointments. As a young man at Edinburgh he had studied the use of chloroform as an anaesthetic under Simpson himself, and he was one of the first to use it extensively in practice. He was an able surgeon, and when occasion arose he was never afraid to operate, even in the discouraging conditions often encountered in country practice. Some of his characteristics and the impression he made on those well acquainted with him are well brought out in the following letters. Mr. W. C. Stevenson, of Steevens's Hospital, Dublin, after describing how he was to be seen driving for long distances in his outside car, in every kind of weather, and at all times of the day and night, continues:

> Thirty years ago he was one of the best known general practitioners in the South of Ireland, and until recently enjoyed a very extensive practice and was the respected and esteemed family physician to many county families. He was a man of many parts and always derived a great deal of pleasure from the study of nature, and possessed a surprising knowledge of the geology and botany of his county. . . . He was a good diagnostician, and frequently obtained brilliant results by a fearless administration of a drug which would surprise the younger generation. Dr. Hayes was a strong man and an erudite physician and surgeon also of the old school. His stout rule and conviction that a doctor should have no politics made his services acceptable to all parties alike. At home he was a most hospitable and courtly gentleman. . . . His death after a very strenuous and useful life severs a link with the past in a way which only those who knew him can appreciate.

Other points in his character are equally well brought out in the following letter from Dr. D. Mahony of Glasnevin, who after some preliminary observations, writes:

> A large section of the province of Munster mourn their wise counsellor, their "beloved physician." His was in truth a noble personality, a living example of what a physician ought to be. Invariably courtly and serene, genial, kindly, and painstaking, we have lost in him what we can ill spare, the embodiment of the best type of traditional Irish medical man. None to whom he ministered in the course of his extended career can ever forget his lovable character, his all-embracing sympathy, his loyalty to his friends, his human-kindness. Of wide general culture and literary tastes, he had in addition the talisman of the successful doctor—that elusive "healing-touch"—the power to inspire confidence and to cheer the depressed. We have left but his memory and the example of his life—a long life consecrated to acts of duty and kindness, and to the welfare of his fellow men. But—
>
> To live in hearts we leave behind
> Is not to die.
>
> In the venerable Gaelic tongue which he loved so well—
>
> Go mbeannuide Dia ar a anam.

A high-minded man himself and an uncompromising opponent of anything in the nature of sham, Dr. Hayes exercised his keen powers of observation to advantage throughout his life, and thus had much that was interesting to relate of those who were great medical authorities in his student days. For Sir Dominic Corrigan, under whom at the Whitworth Hospital, Dublin, he first learnt the treatment of fevers, he had a particular admiration. Dr. Hayes wrote as he spoke, both forcibly and fluently, and was never at a loss for an apt quotation from classic authors. Some of the subjects on which he contributed papers to the medical press were the surgery of severe gunshot injuries, excision of the tonsils, the treatment of chronic inflammation of the knee-joint by Corrigan's cautery, and the importance to be attached to a uterine bruit as a sign of life after apparent cessation of the movements of the fetal heart. He was also a student of Hebrew and Welsh, and conversant with several modern languages. In Gaelic he was a ready speaker, and was engaged during the latter months of his life in translating the *Odes of Horace* into this language.

Dr. Thomas Hayes, who was at one time President of the Munster Branch of the British Medical Association, married in 1861 a daughter of Mr. Henry Bouchier, of Fort William, and is survived by three sons and one daughter. The latter kept house for him during the later years of his life, and of the former two are medical men—Dr. J. T. Bouchier-Hayes, J.P., of Rathkeale, and Dr. H. Bouchier-Hayes of Charleville.

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## WILLIAM COURTENAY MILWARD, B.A.OXON., M.R.C.S., L.R.C.P.,

CARDIFF.

WE much regret to record the death of Dr. William Courtenay Milward of Cardiff at the early age of 41. His death occurred with startling suddenness from angina pectoris on April 9th; that he was ill was known practically to none. Having regard to the nature of his illness, it is no exaggeration to say that overwork and much mental strain in connexion with the Insurance Act materially contributed to his death. His loyalty and devotion to the needs of the local profession were unceasing, and amidst much contention and difference of opinion he had the confidence of every one. He took a sane, level-headed view of all problems, and thoroughly understood the difficulties and anxieties of the recent troublous times.

As senior secretary of the Cardiff Division and Representative of the Division at the Representative Meetings the calls upon him were unceasing, and he was always ready and willing to give advice and assistance.

Mr. Milward was educated at the University of Oxford and Guy's Hospital. He had practised in Cardiff since 1902, where he held the appointments of Poor Law medical officer and medical officer to the Clerks' Association, and was physician to the French Consulate. He was a man of wide reading and considerable culture.

His professional work, though hard, was relatively unremunerative. His work for the profession and his refusal to go "on the panel" until formally released from the "pledge" must have acted detrimentally to his practice.

Dr. Milward attended, on March 19th, a meeting of the Subcommittee of the State Sickness Insurance Committee appointed to consider the amendments to the Insurance Act which are desirable. At its meeting on April 15th that Subcommittee adopted a resolution of regret and sympathy with the relatives of the late Dr. Milward in their bereavement, and this resolution was endorsed by the State Sickness Insurance Committee at its meeting on April 17th.

The local profession feels that it is an obligation on it to do something for his widow and three young children, who are left almost totally unprovided for. A fund has therefore been opened, to be called "The Milward Fund," to which reference is made in our correspondence columns. The fund is open to all, and we hope that it will be liberally supported to mark the appreciation of one who gave his life for the profession.

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THE LATE SIR HENRY SWANZY.—At a meeting of the members of the Council of the Royal Victoria Eye and Ear Hospital, Dublin, on April 15th, the following resolution was adopted:

> The President and Council of the Royal Victoria Eye and Ear Hospital desire to place on record their deep sense of the irreparable loss which has been sustained by them personally and by the hospital in the decease of their Honorary Secretary, the late Sir Henry Rosborough Swanzy. The hospital owes its origin almost entirely to his initiative and public spirit, and the present existing excellence of its structure and organization is largely to be ascribed to the unremitting personal attention which he devoted to every detail. It was through his loyal and single-hearted effort that the many difficulties surrounding the effectual amalgamation of the two older hospitals—St. Mark's Ophthalmic Hospital and the National Eye and Ear Infirmary—were surmounted through the machinery of the Act of Parliament obtained in 1895. Since that date he never spared himself in seeking to arouse in others his own enthusiasm on its behalf and in promoting its development and improvement in everything that modern science could suggest. This hospital was the great aim of his life, and it stands to-day as a lasting and worthy monument to his memory. The President and Council desire to convey to his family their heartfelt and sincerest sympathy with them in the sorrow of their great bereavement.

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DR. WILLIAM ROBINSON EVANS of Dublin died suddenly on April 7th. He attended a meeting in the Merrion Hall that evening, and was one of the speakers; resuming his seat after his remarks, which had occupied about twenty minutes, he almost immediately became weak, and died a few minutes later from heart failure, in spite of all the efforts of another doctor who was present at the meeting. Dr. Evans was educated at Trinity College, Dublin, where he graduated M.B. in 1870 and M.D. in 1879. He studied for some time in Vienna. For many years he had been a well-known and respected practitioner in Dublin. He was consulting physician to the Orthopaedic Hospital. His sister, who has been ill for some time past, was greatly distressed by her brother's death, and died about twelve hours later.

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SURGEON-LIEUTENANT-COLONEL ALEXANDER BREBNER, late Army Medical Service, who died on March 30th at the age of 72, took the degrees of M.B., C.M.Aberd. in 1862 and that of M.D. in 1873. He entered the service in April, 1863, became surgeon in March, 1873, and surgeon-major in April, 1876, retiring in May, 1888, with the honorary rank of surgeon-lieutenant-colonel. He served in the Bhutan expedition in 1865, taking part in the capture of Dewangiri, and received the medal with clasp.

DR. AGNES MCLAREN, who died at Antibes on April 18th, was one of the pioneers of the medical education of women. It was at the house of her father, the late Mr. Duncan McLaren, M.P. for one of the divisions of the City of Edinburgh, that the agitation for the medical education of women, the chief actors in which were Dr. Sophia Jex-Blake and Miss Peachey, was begun. Their object was to open the medical schools, university, and extramural, as well as the clinical wards of the Royal Infirmary of Edinburgh, to women. To a large extent their efforts were in the long run successful. Dr. Agnes McLaren graduated at the University of Montpelier, and afterwards settled at Cannes, where she had a large practice. Some years ago she retired to Cap d'Antibes, and gave herself up to a vigorous campaign against the white slave traffic, and to other social reforms with reference to women. She was a woman of strong individuality and character, and was known to a large circle of philanthropic workers of many nations, of many kindreds, and of many creeds—she had herself become a Roman Catholic. She has died at an advanced age, though somewhat unexpectedly, and will be greatly missed by many. She was the sister of Lord Aberconway; of the late Lord McLaren, one of the judges in the Supreme Court in Scotland; of Mr. Walter McLaren, M.P., and of Mr. Duncan McLaren, of St. Oswald's, Edinburgh.

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# Medico-Legal.

## LIND-AF-HAGEBY VERSUS ASTOR AND OTHERS.

THIS case, which had occupied practically the whole time of Mr. Justice Bucknill and a special jury since April 1st, came to a conclusion on Wednesday, April 23rd. The claim was for damages for libel, the action being brought by Miss Emelie Augusta Louise Lind-af-Hageby against Mr. William Walford Astor, the proprietor of the *Pall Mall Gazette*, Mr. David Cameron Forrester, the printer, and Mr. James Louis Garvin, the editor, and Dr. Caleb Williams Saleeby, the writer of the articles complained of. The defendants denied that the words referred to the plaintiff, and in the alternative said that they were true in substance and in fact. They also pleaded bona fide comment on a matter of public interest.

The plaintiff appeared in person.

Mr. Duke, K.C., Mr. McCardie, and Mr. S. J. Field appeared for Dr. Saleeby; and Mr. Shearman, K.C., and Mr. Hugh Fraser for the *Pall Mall Gazette*.

Dr. Saleeby had written about the exhibition of the Animals Defence and Antivivisection League in Piccadilly, and in the *Pall Mall Gazette* of May 7th had referred to "the systematic campaign of falsehood without which the antivivisectionist societies could not exist," and cited this window as an illustration of "the unscrupulous mendacity of their hirelings." He pointed out that there was no indication given that the animal upon the board was chloroformed, and asked, "What point would there be in the exhibition if that fact were known?"

The plaintiff was the honorary general secretary of the Animals Defence and Antivivisection League and editor of the *Antivivisection Review*, and had taken a prominent part in the antivivisection campaign.

The defendants, in support of their defence that the words in question were true, had set forth a large number of extracts from various publications issued by or with the authority of the plaintiff. The documents most frequently quoted from were *The Shambles of Science* and the *Antivivisection Review*. Each member of the jury was supplied with a copy of these particulars.

A large number of witnesses were called on either side; those called for the plaintiff included Dr. Robert H. Perks, Mr. Stephen Smith, Lieutenant-Colonel Lawrie, I.M.S.(ret.), Dr. Valentine Knaggs, Dr. W. J. Cameron, and Dr. Richard Cowen; and for the defence, Professor E. H. Starling, Sir Victor Horsley, Dr. C. J. Martin, Director of the Lister Institute of Preventive Medicine; Dr. J. W. H. Eyre, Director of the Bacteriological Department of Guy's Hospital; Dr. Alice Corthorn; and Dr. William Bulloch, Bacteriologist of the London Hospital.

Mr. Justice Bucknill, in the course of his summing up, said that after a long inquiry he had the most difficult duty of any one in court—namely, to remind the jury of the real facts and issues at stake. It was a question of fact which the jury had to deal with, not a religious question or question of sentiment. Had Dr. Saleeby defamed the character of the plaintiff so as to give her a legal right to sue for damages for defamation? Looking at the passages which were said to be libellous, they were said to amount to this—that the plaintiff had untruthfully and dishonestly with her associates carried on a campaign against the practice of vivisection. She had undoubtedly been a very hard worker in a very laudable cause. In her honour be it said that he could not help admiring the vigour with which she had fought the battle of the antivivisector. She was entitled to be an antivivisector. She was a lady of marvellous power, able to stand

in court day after day showing no sign of fatigue, not losing her temper, and able to cross-examine as well as any counsel at the Bar. All that was to her credit. But it was her duty to be truthful and fight her opponents fairly. He could not help thinking that she must now regret the attack upon the Royal Commission which was embodied in the letters signed "Nemesis," admittedly written by her. In one of those letters she had said of Lord Cromer: "You are not the first man of prominent position who has warmly championed cruelty." It was true she might express her opinion as strongly as she liked; but she was not entitled to further the cause by making statements which were dishonest and untruthful. There was no evidence to show that she had done anything to ascertain the truth with reference to her statement that 6,500,000 people had died from plague in India as a result of serum inoculation; she had made a statement of which she had no knowledge. [At this point the plaintiff interjected the remark: I relied on Dr. Helen Bouchier, who had been in India.] Reviewing the evidence given by the plaintiff, his lordship remarked that she had said in terms that she had adhered to the open letter written to Lord Cromer. If that was so, Lord Cromer might well bring an action against her. He (the learned judge) disliked the practice of writing "open letters," and in saying that he was not speaking of Miss Lind alone. Many men did not want to go to law to set up a character which they knew they had never lost, but some people were so sensitive that, if accused of being untruthful, they would take sixteen days before a judge and jury to prove the contrary. He felt much puzzled by the antivivisectionist argument that one may cut up a mouse to save the mouse's life, but one must not do so to save a human life. The jury had to ask themselves whether Dr. Saleeby's letters might have been considered by a reasonable person to apply to the plaintiff, and whether the language was defamatory. Had no evidence been called on the part of the defendants, the only questions would be, was there malice and the amount of the damages. As to damages, the plaintiff had not said much as to how much she wanted. She had said that she felt very deeply that her character had been impugned, but she also said she had come, not for the purpose of obtaining money, but to vindicate her character. If they found in her favour, they would give her damages which would not be so small as that people might point the finger at her and say that she had been awarded the smallest coin of the realm. They must mark in a sensible way the wrong which had been done her. His lordship then reviewed the evidence for the defence at considerable length. He pointed out that Dr. Saleeby, in an earlier part of the article attacked, had said that he, too, disapproved of cruelty. As to the suggestion of the plaintiff that an air of levity sometimes pervaded the lecture theatre, the evidence showed that students would joke and laugh, but whether they were laughing about football or not, they were not laughing at animals in pain. Did they think that the defendants had made out their case? Had they satisfied them (the jury), in the first place, on the plea of justification? It was not necessary that every single fact alleged in the plea of justification should be proved. The question was, Had the truth of the allegations been substantially proved? If they thought that the list of particulars of justification had been substantially proved to their satisfaction; that what Dr. Saleeby wrote he was justified in writing, and wrote on facts which had been proved to be true; that, in point of fact, the plaintiff had been proved to be guilty of mendacity; that the campaign had been carried on untruthfully; that she and her associates had during this long time been attempting to destroy the vivisectional stronghold, and take to themselves the people as antivivisectionists—if they were satisfied on all these points, and that the plaintiff had knowingly taken an active part, they would be entitled to say that the plaintiff's case had not been proved. But that was not all. There was the plea of fair comment. Let the jury imagine they were all antivivisectionists, and ask themselves the simple question, "If we were to carry on a campaign against vivisection, would we have carried it on as this campaign has been carried on?" Would they have carried on a truthful campaign if it had been conducted on these lines? He would add one word as to Miss Lind in conclusion. She had spoken very strongly and very deeply when appealing to them at the close of her reply. Verdicts, however, must be given on evidence, not on sentiment. If they thought Dr. Saleeby was justified in writing the letters, their verdict must be for him. However sorry they might feel for her, they must do their duty.

After an absence from court of about twenty minutes, the jury returned a verdict for both defendants.

Judgement was entered accordingly, in both cases with costs.

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THE late Sir Thomas Frederick Chavasse, F.R.C.S., left estate of the gross value of £17,407, of which £16,010 is net personalty.

A NEW system of lighting operating theatres has recently been brought out by Messrs. Leitz, of Wetzlar and London, and appears to merit examination by surgeons. Its central feature is the distribution of the light of an arc lamp by a series of reflectors, so placed that one or other of them must continue to supply adequate illumination whatever the position or attitude adopted by the operator. An installation of a corresponding kind is stated to have been in use at the new obstetric school at Strasburg for about a year and to have proved successful.

# Public Health AND POOR LAW MEDICAL SERVICES.

## POOR LAW MEDICAL RELIEF AT BURNLEY.

IN our issue of April 12th, p. 797, it was pointed out that the Local Government Board had refused to sanction the proposals of the Burnley Guardians with regard to the arrangements for medical relief in the union, pending their consideration by the new board about to be elected. That board has just held its first meeting, and the matter was again considered. It is to be regretted that after what seems to have been a very cursory examination of the subject under dispute, and in spite of urgent representations from some of the newly-elected guardians, the board by a large majority instructed the Clerk to forward the same scheme again to the Local Government Board for its approval, without any alteration. The Burnley Guardians had before them a strong protest from the Corporation of Colne, and a request from the local profession to receive a deputation to discuss the matter in order, if possible, to come to an amicable arrangement. Several of the guardians were strongly in favour of receiving this deputation, and Mr. Procter (a guardian) considered that there was much information the old members had never had before them. But a large majority of the board was opposed to all compromise, and desired to ignore the objections both of the local authorities in their area and the Burnley profession. No attempt was made to answer the numerous objections that have been put before the Local Government Board, and no further reason was given in favour of their proposals than a plea based on Art. 159 of the Consolidated Order of July, 1847, that a medical district should contain a population of not more than 15,000. As this regulation is practically a dead letter in most parts of England and Wales, it can hardly appeal very strongly to the Local Government Board, and is certainly no answer to the weighty objections that have been urged on the other side. The matter is now entirely in the hands of the Local Government Board, which can hardly approve of the high-handed action of the Burnley Guardians. It is earnestly to be hoped that before deciding the matter it will itself institute some inquiry on the spot.

# Medical News.

VACCINATION has been made compulsory in Bosnia and Herzegovina.

THE eleventh International Congress of Pharmacy will be held at The Hague in September (17th to 21st).

DR. D. J. GALLOWAY has been reappointed an unofficial member of the Legislative Council of the Straits Settlements.

THE annual meeting of the London and Counties Medical Protection Society will take place next Wednesday, April 30th, at 4 p.m., at the society's home, 32, Craven Street, W.C.

AN Anglo-German exhibition is to be held this year from May to October at the Crystal Palace. Of its seven sections, one will be devoted to questions of education, and another to those of food supplies.

FOURTEEN French colonization companies have contributed funds for the institution of a complementary course of colonial studies (pathological protohistology) in Paris, with a laboratory in connexion therewith.

THE Council of the Royal Sanitary Institute, believing that the Medical Officers of Health Superannuation Bill would tend to the better administration of the public health service, has resolved to petition Parliament in favour of it.

THE Gresham Professor of Physic, Dr. F. M. Sandwith, will on Tuesday, Wednesday, Thursday, and Friday of the week beginning May 13th give four lectures on the cradle of pharmacy, on opium, on arsenic, and on mercury respectively. The lectures will be given at 6 p.m. on each day at the City of London School.

A SOCIETY of Jewish doctors and scientists in Palestine has been founded for the purpose of improving the sanitary conditions of the country. It is intended to establish a bacteriological laboratory, central clinics for the education of those who have charge of infants, and departments for the study of malaria and the suppression of trachoma. The president is Dr. Sandler, Droysenstr. 6, Charlottenburg.

DR. LE FLEMING, Chairman of the Bournemouth Division; Dr. Eleanor Bond, Secretary; Dr. Johnson Smyth, Representative; and Dr. Willans, Secretary of the Bournemouth Practitioners Union, were entertained at a banquet and musical evening at the Mont Dore Hotel, Bournemouth, on the evening of April 16th. As a further mark of the

appreciation of their labours during the Insurance Act crisis, each was presented with a silver salver suitably engraved.

THE Swiss Esperanto Medical Association has invited the Universal Esperanto Medical Association to hold its annual congress in Berne during the ninth International Esperanto Congress, which commences on August 24th next in the buildings of the University of Berne. There will be one or two meetings of the Universal Esperanto Medical Association during the seventeenth International Medical Congress in London.

A NATIONAL league against cancer has been founded in Belgium with the title "The Mauve Cross." The head quarters are at Brussels, and it is intended that there shall be local committees in the provinces. It is in contemplation to create an institute of cancer with a laboratory and annexes, and to subsidize the four Belgian universities with the object of founding in them centres for the study of cancer. The initiative of the movement is due to Professor Jacobs, the well-known gynaecologist.

A SPECIAL meeting of the Section of Medicine of the Royal Society of Medicine is to be held next Tuesday evening for the purpose of witnessing a demonstration by Dr. Monod of Vichy of the possibilities of the cinematograph in the teaching of biology. The films to be shown by him include a new method of demonstrating the heart's action by animated cardiograms, one relating to the development, fecundation, and segmentation of cells, and others bearing on the circulation of the blood and the digestion of albumen, fibrin, and starch. The section extends an invitation to be present to all members and Fellows of the society.

ON December 18th, 1912, the medical profession of the State of New York organized and duly incorporated under the State law an association entitled the American Society of Medical Economics for the study, investigation, and control of the economics of the profession. Membership is open to all duly licensed practitioners, and the society aims at the unification of the entire medical profession in economic matters. It is hoped that it will thus become possible to develop a degree of concerted medical activity for the protection of the public against ignorant, improper, and corrupt legislation, medical frauds, the substitution of drugs in the dispensing of doctors' prescriptions, the sale of impure drugs and foods, and quackery in general. The society has provided for the immediate establishment, through the development of branch societies in every State in the Union, of a national body for the management and control of medical economics.

ON May 1st, under an Order in Council signed last October, carbolic or liquid preparations sold as carbolic or as carbolic acid, or as carbolic substitutes, or as carbolic disinfectants, and which contain not more than 3 per cent. of phenols, become substances to which Section 5 of the Poisons and Pharmacy Act, 1908, applies; that is to say, in whatever form they are put up for sale they must be labelled not only with the name of the substance and the name and address of the vendor, but also with the word "Poison." Failure to observe this rule may be punished by a fine not exceeding £5. The Local Government Board points out that when liquid disinfectants are either distributed gratuitously or used by their own officers, local authorities ought to observe the same precautions as those which are enforcible by law when such substances are dispensed or sold.

THE Local Government Board has issued a general order accompanied by a circular letter to boards of guardians outside London expressing the desire that the arrangements now in force in London for securing a more uniform and satisfactory treatment of the problem of the tramp should be extended to the rest of the country. In London the Metropolitan Asylums Board co-ordinates the work of dealing with casuals, and in more than twenty counties of England arrangements are in force or in contemplation based on the "way-ticket" system. The Local Government Board desires that in every county a committee, representative of the various boards of guardians and of the police, shall be established to co-operate with the guardians in securing: (*a*) Uniformity of administration in regard to casuals; (*b*) discrimination in favour of those genuinely in search of work; and (*c*) the provision of a mid-day meal for vagrants.

THE annual meeting of the General Association of the Medical Practitioners of France was held on April 6th under the presidency of Professor Gaucher. The budget showed a deficit of £280; last year the deficit was £240. After consideration of the financial situation, there was a discussion on the nomination of physicians and surgeons to provincial hospitals. A report presented by Dr. Maunoury, of Chartres, recommended that in large towns they should be elected by public competition, and that in towns of less than 5,000 inhabitants the hospital appointments should be distributed in turn among the local practitioners. The meeting approved the recommendations. What the profession is anxious to do is to withdraw the physicians and surgeons of the hospitals of small towns from the arbitary authority of the Mayor, the Prefect, and administrative commissions.

THE Société d'Hygiène de l'Enfance offers a prize for the best essay on the following subject: The place which notions of puericulture and the hygiene of infancy should occupy in modern education. Essays sent in competition must be unpublished and may be written in French, German, English, Italian, or Spanish. They must be authenticated by a device or motto reproduced on a sealed envelope containing the name and address of the author. Manuscripts should be sent before December 31st, 1913, to the President of the Société d'Hygiène de l'Enfance, 10, rue St. Antoine, Paris (4e). No essay will be returned; all, without exception, will remain the property of the society, and must not be published by their authors. The society reserves to itself the right to extract from the best essays matter for a pamphlet of propaganda and instruction. The prizes consist of gold, silver-gilt, silver and bronze medals and honourable mentions. The prizes will be awarded at the public annual meeting of the society in 1914.

SUPPORTERS of the National Hospital for the Paralysed and Epileptic met at the Hôtel Métropole on April 16th, when the festival dinner took place, under the presidency of Lord Strathcona, who, in proposing the toast of "Success to the Hospital," spoke of the value of the institution as a field for medical training. Sir Frederick Macmillan, Chairman of the Governors, in response, mentioned the improvements that had been made in the last eleven years in the equipment of the hospital. The Dean of Canterbury submitted the toast of "The Medical and Surgical Staffs." He said that the medical and surgical staffs of hospitals had been the means of changing the significance of the word "hospital." Whereas a hospital was formerly a place of refuge for the destitute, it had now become a place, not of resignation, but of hope. It was largely due to the efforts of the medical staff of the National Hospital that the advances of the last fifty years in the study of nervous diseases had been made. Sir Victor Horsley, who responded, said that no medical staff ever received better support from the board of management than did the one attached to the National Hospital. The toast of "The Chairman" was proposed by H.S.H. Prince Alexander of Teck. It was announced that a collection made during the evening on behalf of the hospital funds amounted to £2,316. Lord Strathcona subscribed £1,000.

SOME interesting types of primitive humanity are to be seen at the Victoria Palace, Victoria Street, S.W., where Mr. Alfred Butt is presenting a series of animated pictures reproduced from photographs taken by Mr. Martin E. Johnson, who accompanied Mr. Jack London, the famous American novelist, on his four-years' voyage among the islands of the South Pacific. The little band, which consisted of Mr. London, his wife, and their four companions, visited New Zealand, Sumatra, Java, Borneo, New Guinea, the Hawaii, Fijis, Solomons, Marquesas, and the New Hebrides, and made their way into regions hitherto unknown even to the missionary or the trader. The results of this adventurous cruise, as recorded in Mr. Johnson's beautiful photographs, will be of great interest to every student of ethnology. The inhabitants of the South Sea Islands comprise many widely varying racial types, from the comparatively civilized mongolian of the Zulu Archipelago to the debased negroid type usually found amongst the cannibals of the Solomons and New Hebrides; the flat noses, thick lips, and woolly hair of a group of Solomon Islanders photographed by Mr. Johnson (one of whom showed unmistakable signs of elephantiasis in the right forearm) present a striking contrast to the light brown skins and more regular features of the natives of Samoa or Hawaii. The language, dress, habits, religious beliefs, and manner of warfare of these primitive races differ as much as their personal appearance; and save where they have been modified by contact with the white man, their customs have remained unchanged. Mr. London and his party availed themselves to the full of their opportunities for studying native life at close quarters, and thanks to their courage and perseverance in the face of dangers and difficulties of every kind, it is possible to obtain an insight into the conditions in which the South Sea Islander lives and dies. Mr. Johnson's collection of photographs is now on view for the first time in England, and forms an interesting memorial of the expedition.

# Letters, Notes, and Answers.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

## QUERIES.

V. asks to be referred to some recent summary on the vaccine treatment of chronic bronchitis, together with any statistics of successful cases, the class of case most likely to be benefited, and the best time of year to adopt such treatment.

A. H. asks for suggestions for the treatment of angio-neurotic oedema in a man aged 49, of abstemious habits. The attacks are accompanied by transient urticaria, and the patient has had one illness believed to be due to gout. He has been carefully dieted, oral sepsis attended to, and such drugs as bismuth and calcium lactate administered without relief. A short course of vaccine treatment led to no marked result.

### INTERMITTENT GLYCOSURIA.

DR. THOMAS writes: I am much obliged to Dr. Cammidge for his valuable information—not given in the ordinary text books—on the above subject. But the question on which I desired enlightenment was whether the faulty glycogenic metabolism, as evidenced by the glycosuria, and, in this case, accompanied by bacilluria, was chemical or bacterial in origin; or, to put it another way, what caused the particular hormones to go on strike and stay in their native home in the pancreas, or wherever they may dwell or are born?

### RHEUMATOID ARTHRITIS.

CHRONIC RHEUMATISM writes: Doubtless many readers have enjoyed Sir James Barr's paper on the above in the JOURNAL of April 12th. As it introduces the question of a logical basis for certain alleged clinical facts may I be allowed to ask Sir James one or two points? Is not the statement that the pain of rheumatoid arthritis is only nocturnal rather too "universal" to be made by a single observer, this apart from its supposed cause which for Sir James Barr is the supervention of an acid tide in the tissues at night? Are rhubarb and oatmeal condemned on theoretical grounds or as the result of large personal observation—the views of the laity on the former are well known and based on the "acid" theory. If the "alkaline treatment," quite an old one, is a "cure" (the word "cure" is used in the last paragraph of the paper); how has it given place to guaiacol, vaccines, etc., and how far do the dwellers on limestone and chalk formations suffer or undergo automatic cure as compared with those enjoying a soft (acid) water supply?

### INSTITUTIONS FOR MENTAL DEFICIENTS.

A MEMBER of the Association, who expects to be consulted with regard to the erection of institutions for mental deficients, asks to be referred to (1) textbooks on the subject—he is acquainted with the Report of the Royal Commission and the National Conference for Prevention of Destitution, 1911—and (2) to any institutions in England, if not abroad, where the practical working of the subject such as the bill now before Parliament contemplates could be studied.

*** (1) In addition to the two reports mentioned, there is a scheme outlined in Sherlock's book, *The Feeble-minded* (London: Macmillan and Co., Limited, 1911, price 8s. 6d.), Chapter VII. The secretary of the National Association for Promoting the Welfare of the Feeble-minded, Denison House, Vauxhall Bridge Road, London, S.W., has pamphlets and descriptive particulars of American institutions, and would, we have no doubt, be happy to show them. (2) The National Association has a farm colony at Hildenborough, Kent; in addition to these are in England the Starcross Institution (farm and industrial) near Exeter, the Darenth (farm and industrial) Colony of the Metropolitan Asylums Board at Dartford, Kent; the colony of the Lancashire and Cheshire Society for the feeble-minded at Sandlebridge, and the colony established by the Birmingham Board of Guardians. For American colonies, see the report of Royal Commission. Our correspondent might also refer to the report on the family care of the insane poor, published in the BRITISH MEDICAL JOURNAL of 1905, vol. ii, but most of the facts contained in this report were, we believe, given to the Royal Commission by Dr. Cunyngham Brown.

## ANSWERS.

HIBERNIA.—No doubt a considerable number of infants are vaccinated when under 4 weeks old. There is no special reason why this should not be done in the case of healthy infants, except that parents are disposed to attach the blame to vaccination where skin affections appear subsequently. By waiting until 4 to 6 months old the liability of the infant to skin troubles will have been ascertained. During the prevalence of small-pox in any locality there should be no hesitation about vaccinating infants under 4 weeks old.

### INCOME TAX.

A. D. M.—A practitioner in general practice, holding also the office of medical officer of health, is allowed, upon notifying his intention to do so, to include his emoluments in his general return under Schedule D. The form of return under Schedule E should be sent to the assessor or surveyor with an endorsement to the effect that it is proposed to follow this course.

### HYPERTROPHIED PROSTATE.

DR. H. D. MCCULLOCH (London) writes in reply to "X. X." to recommend either of the two following methods: (1) By *x*-ray irradiation in the lithotomy position, without divestment of garments, through the perineum. A medium hard tube with a Belot's shield and localizer and thick leather filter; twelve bi-weekly applications of ten minutes' duration each. Histologically the prostate is an adenoid gland, closely related to lymphatic glands, which are peculiarly amenable to such applications. (2) By a six weeks' course of drinking radium emanation water daily. The emanation is eliminated by the lungs and kidneys; the abnormal fibrous tissues would be resolved. These methods are contraindicated in acute inflammatory processes. Attention may also be drawn to the abstract which appears on page 59 of the Epitome of Current Medical Literature, BRITISH MEDICAL JOURNAL, April 12th, 1913.

*** For information with regard to the emanation, reference might be made to the report of the Radium Institute published in the BRITISH MEDICAL JOURNAL of January 25th, 1913, page 149.

### THE HALF-PAY LIST.

HALF PAY.—It is not correct to say that half pay is unknown in the Royal Army Medical Corps, though it is true that the conditions under which an officer is placed on the half-pay list differ essentially from those applying to half pay in the Royal Navy. In the Royal Army Medical Corps the term "half pay" is only used in two connexions: (1) A full colonel on completion of four years in that rank may be placed on the half-pay list, but is eligible for restoration to the active list and promotion to higher rank subject to the usual rules as to retirement on account of age. (2) Any officer who is pronounced physically unfit for duty, and who is still pronounced unfit for duty at the end of the regulation period of possible sick leave, may then be placed upon half pay; but he is eligible to return to the full-pay list at any time within five years if found fit for duty. If not found fit for duty within five years he must retire on any retired pay or gratuity for which his service may render him eligible.

## LETTERS, NOTES, ETC.

### FOOT SUPPORTS.

A FOURTH edition has been issued of *Scientific Correction for Ailments of the Feet*, a pamphlet issued by the Scholl Manufacturing Company. It contains a general description of the anatomical conditions which have been deemed by surgeons to be benefited by appliances worn in the boots, and then gives descriptions of some two dozen or more of the devices manufactured by itself. These include arch supports intended for various degrees of flat-footedness, one intended to be worn by those whose foot fatigue arises mainly from their being engaged in occupations necessitating their standing for prolonged periods, and several means of relieving cases of bunion and obviating conditions which result therein. Such of the appliances of the firm as we have examined have seemed well devised, and were generally made of a silvery material which oxidized only to a very limited extent on exposure out of doors for several days. The firm does much of its work apparently through agents, a special feature of its arrangements being the supply to each of them of a simple piece of machinery designed to adapt the exact curve of any support to its intended wearer's foot when this has been relieved of all weight. Copies of the pamphlet can be obtained from the firm at 1-4, Giltspur Street, E.C.


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